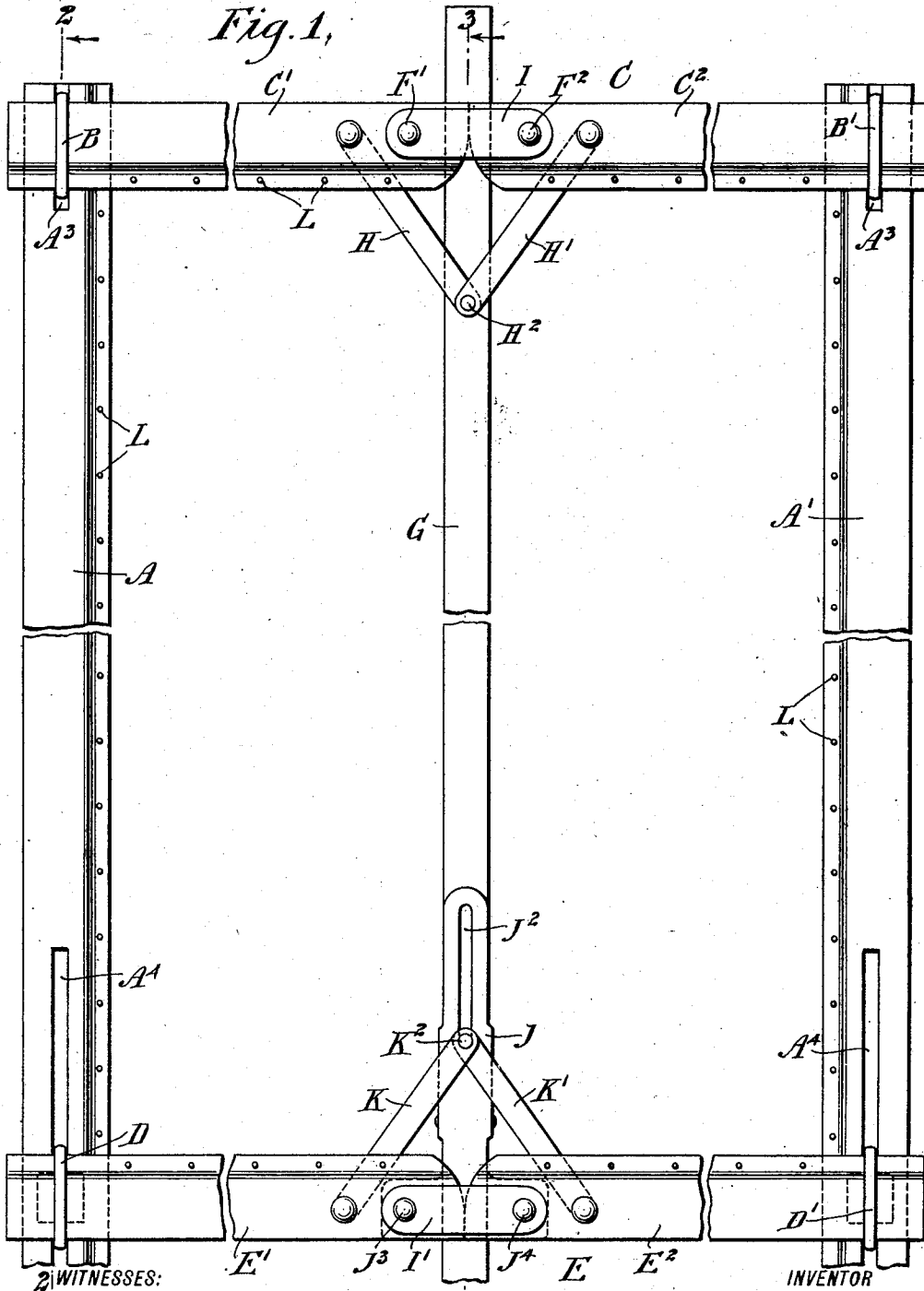


J. O. HOLMQUIST.
 SELF SQUARING CURTAIN STRETCHER.
 APPLICATION FILED AUG. 19, 1910.

992,717.

Patented May 16, 1911.

2 SHEETS—SHEET 1.

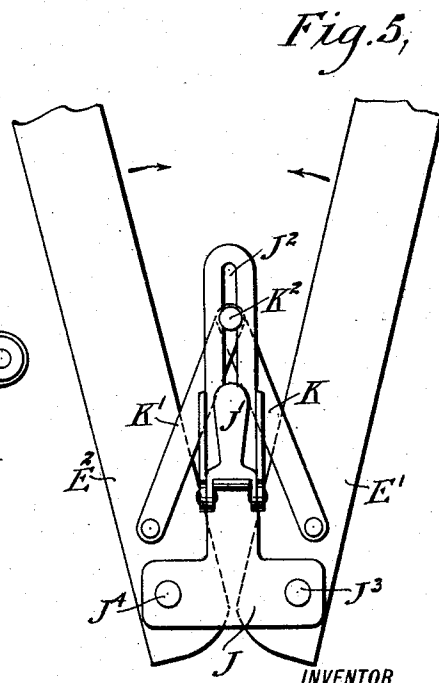
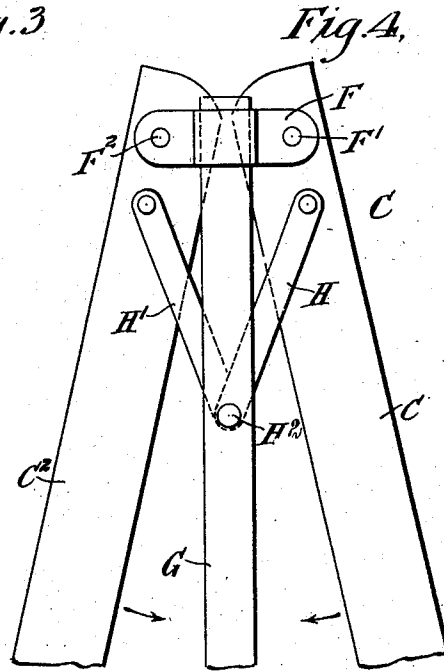
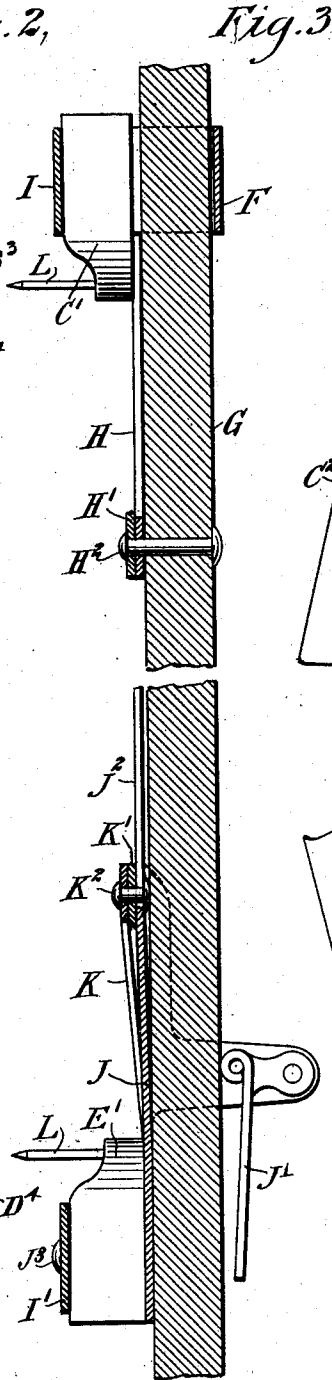
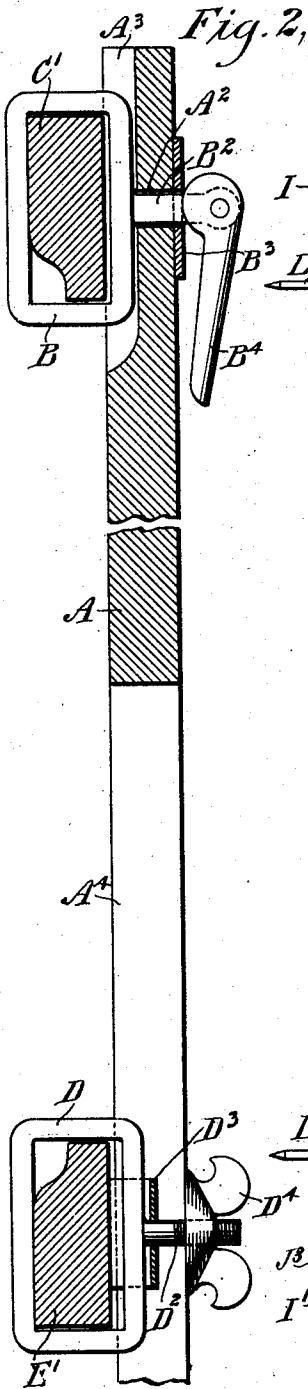


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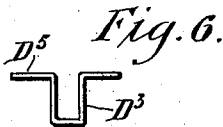
Patented May 16, 1911.

2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN OTTO HOLMQUIST, OF CHICAGO, ILLINOIS.

SELF-SQUARING CURTAIN-STRETCHER.

REISSUED

992,717.

Specification of Letters Patent.

Patented May 16, 1911.

Application filed August 19, 1910. Serial No. 577,952.

To all whom it may concern:

Be it known that I, JOHN OTTO HOLMQUIST, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Self-Squaring Curtain-Stretcher, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved self-squaring curtain stretcher, arranged to permit convenient folding when not in use, and to allow moving its side bars and end bars into square position relative one to the other when opening the stretcher, to insure proper accurate stretching of the curtain while drying the same. For the purpose mentioned the end bars of the stretcher frame are made in sections pivotally connected with each other, and engaged by a guide bar and links to insure proper opening and closing of the sections.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the curtain stretcher; Fig. 2 is an enlarged sectional side elevation of the same on the line 2—2 of Fig. 1; Fig. 3 is a similar view of the same on the line 3—3 of Fig. 1; Fig. 4 is an inverted plan view of the upper end bar partly folded; Fig. 5 is a similar view of the lower end bar partly folded; and Fig. 6 is an end view of one of the shoes.

The frame of the curtain stretcher consists of the side bars A, A', and is provided at the upper end with clamping loops B, B' slidingly engaged by the ends of the upper end or cross bar C, and the lower ends of the side bars A, A' are provided with clamping loops D, D' engaged by the terminals of the lower end or cross bar E. The upper end bar C is made in sections C', C², pivotally connected with each other by a guideway F, slidingly engaged by a guide rod G pivotally connected by diverging links H, H' with the sections C' and C², as plainly indicated in the drawings. The guideway F is preferably arranged on the under side of the end bar C while the top is provided with a connecting link I for the sections C', C², it being understood that the pivots F', F² for connecting the guideway F to the sections C', C² also engage the con-

necting plate I. The pivot H² connecting the diverging links H and H' with the guide bar G is a distance from the guideway F, and hence when the sections C' and C² are moved into an extended position as shown in Fig. 1, they move finally into alinement with each other, thus standing at right angles to the side bars A, A'. When the end bar C is disengaged from the loops B, B', the sections C', C² can be readily swung toward each other into folding position, as indicated in Fig. 4, so as to take up very little room when the curtain stretcher is not in use.

The end bar E is made in sections E', E², pivotally connected with each other by a guideway J for the passage of the guide rod G, the guideway J being provided with a clamping lever J' adapted to engage the under side of the guide rod G, to clamp the latter in place after the sections E', E² are extended or moved in alinement with each other, so as to extend at right angles to the side bars A, A'. Diverging links K, K' are pivotally connected with the sections E', E² and are pivotally connected with each other by a pivot pin K², slidingly engaging a lengthwise-extending slot J² formed in the guideway J. Thus when the clamping lever J' is moved by the operator out of clamping engagement with the guide rod G and the terminals of the end bar E are disengaged from the loops D, D' then the sections E', E² can be readily folded, as indicated in Fig. 5, it being understood in this connection that the guide rod G is disengaged from the guideway J when folding the sections E', E². The guideway J is attached to the under side of the sections E', E², and the latter are connected with each other on the top by a plate I' held in place by the pivots J³, J⁴ used for attaching the guideway J to the sections E', E².

It is understood that by the arrangement described, both end bars C and E when extended move into right-angled positions relative to the side bars A, A', so that the frame of the stretcher is practically self-clamping.

Each of the loops B, B' is provided with a shank B² extending rearwardly and passing through an aperture A² formed in the corresponding side bar A or A', and also with a washer B³, as plainly indicated in Fig. 2, the washer B³ being engaged by the cam end of a cam lever B⁴ fulcrumed on the rear end of the shank B². The loop B or

B' extends with its bottom part into a groove A³ formed lengthwise in the upper face of the side bar A or A'. Now when the terminals of the end bar C engage the loops B, B' and the cam levers B⁴ are moved by the operator into active position, then the said loops B, B' are drawn downward to clamp the end bar C firmly in place on the upper faces of the side bars A, A'. The clamping loops D, D' slidably engage lengthwise-extending grooves A⁴ formed in the bars A, A', so as to accommodate curtains of different lengths, and each of the clamping loops D, D' is provided with a threaded shank D² extending through the slot A⁴ and through the bottom of a shoe D³ slidably engaging the slot A⁴. The threaded end of the shank D² is engaged by a wing nut D⁴ abutting against the under surface of the corresponding side bar A, A', so that when the wing nut D⁴ is screwed up, the loop D or D' is drawn downward to clamp the end bar E in position on the corresponding side bar A or A'. The shoe D³ is preferably provided with side flanges D⁵, fitting onto the top of the corresponding side bar A or A', so that when the wing nut D⁴ is loosened the loop D or D' can be readily adjusted lengthwise on the side bar A, A' and with it the shoe D³. It is understood that the bars A, A', C and E are provided with the usual pins L, on which the curtain is fastened, and the side bars A, A' can be adjusted toward or from each other to accommodate curtains of different width, and the end bar E can be adjusted toward or from the end bar C to accommodate curtains of different length.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A curtain stretcher having oppositely disposed bars, each made in sections hingedly connected with each other, guideways held on the said bars at the joints of their sections, a guide rod slidably engaging the said guideways, links connecting the guide rod with the sections of one of the bars, links pivotally connected with the sections of the other bar and slidably connected with the guideway located at the last mentioned bar, and a locking device on this guideway for locking the guide rod in position.

2. A curtain stretcher, comprising side bars, end bars made in sections, a guideway

for each end bar extending across the joint of the sections of the end bar and pivotally connected with the sections, a guide rod engaging the said guideways, diverging links pivotally connecting the guide rod with the sections of one end bar, diverging links pivotally connected with the sections of the other end bar and slidably connected with the guideway at the last mentioned end bar, and clamping loops held on the side bars and engaged by the free ends of the said end bars.

3. A curtain stretcher, comprising side bars provided with clamping loops, end bars slidably engaging the said clamping loops and each made in sections, a guide rod in alinement with the joints of the sections of the said end bars, guideways extending across the joints of the sections of the end bars and pivotally connected with the said sections, one of the guideways having a slot and a clamping lever, the said guide rod slidably engaging the said guideways and adapted to be locked in place by the said clamping lever, diverging links pivotally connecting the guide rod with the sections of one end bar, and diverging links pivotally connected with the sections of the other end bar and slidably engaging the said slot.

4. A curtain stretcher provided with a side bar having a lengthwise-extending slot, a shoe slidable in the said slot, a clamping loop engaging the said shoe and provided with tightening means, and an end bar slidably engaging the said loop and adapted to rest on the said shoe.

5. A curtain stretcher comprising a guide rod, a sectional bar at each end of the guide rod, one of the said bars being slidable on the rod, means for limiting the movement of the said bar, means for locking the sections of the bars in alined position, and a side bar at each side of the guide rod, each of said side bars being slidably connected to the adjacent sections of the end bars, and means for locking each section to the adjacent side bar.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN OTTO HOLMQUIST.

Witnesses:

CHARLES H. HINMAN,
HENRY A. HINMAN.