No. 809,684. PATENTED JAN. 9, 1906.

F. M. HAYNES.

CURTAIN STRETCHER.

APPLICATION FILED JAN. 28, 1905.

Fig. 1.

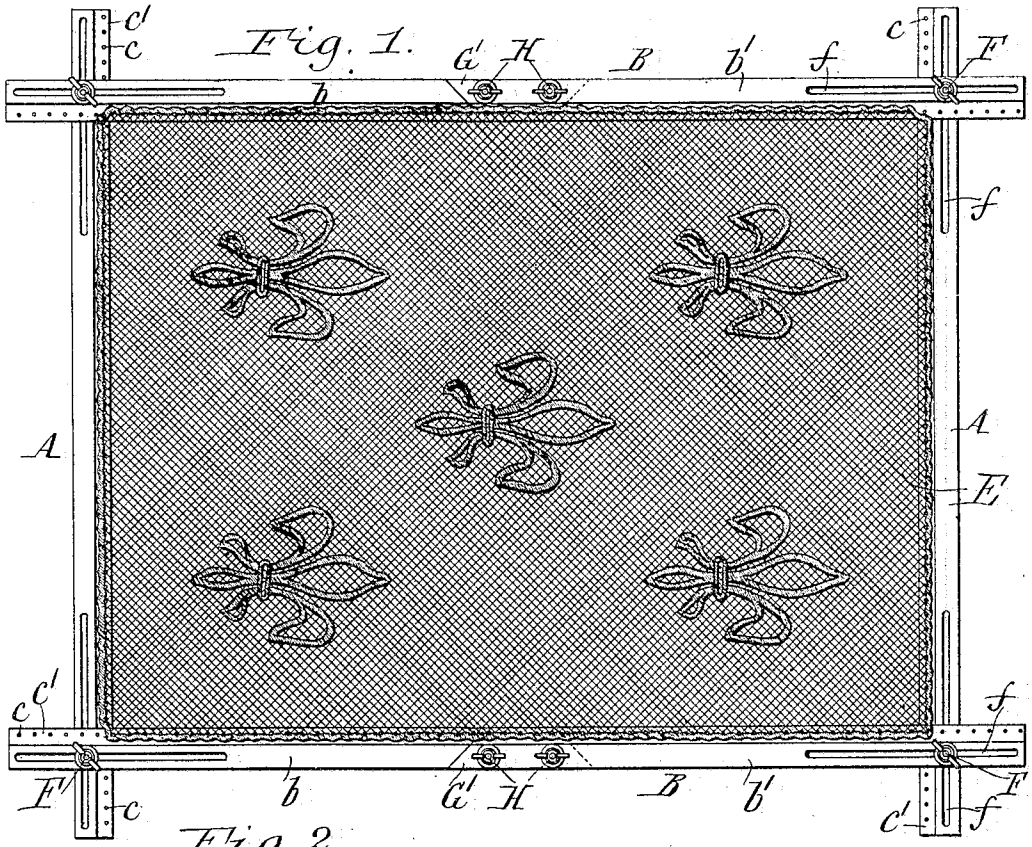


Fig. 2.

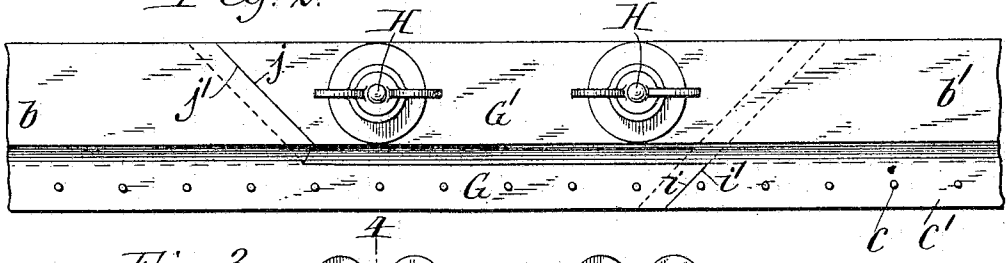


Fig. 3.

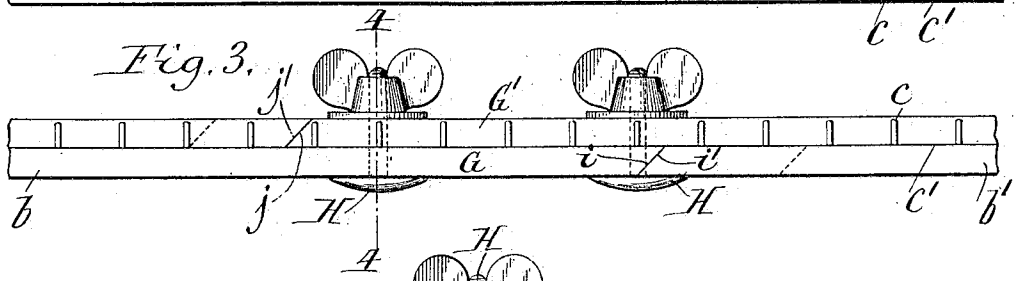
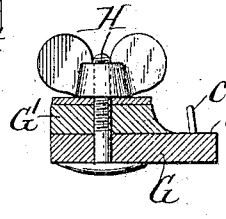


Fig. 4.



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UNITED STATES PATENT OFFICE.

FREDERICK M. HAYNES, OF BUFFALO, NEW YORK.

CURTAIN-STRETCHER.

No. 809,684. Specification of Letters Patent. Patented Jan. 9, 1906.

Application filed January 28, 1905. Serial No. 243,097.

To all whom it may concern:

Be it known that I, FREDERICK M. HAYNES, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Curtain-Stretchers, of which the following is a specification.

This invention relates to a joint for connecting the sectional bars of a curtain-stretcher and the like, and has the object to provide a joint for this purpose which is very simple and cheap in construction and easily operated and which holds the bars rigidly in position while in use.

In the accompanying drawings, Figure 1 is a face view of a curtain-stretcher, showing my improved joint applied to the sectional bars thereof. Fig. 2 is a similar view of one of the joints, on an enlarged scale. Fig. 3 is an edge view of the same. Fig. 4 is a cross-section of the joint in line 4 4, Fig. 3.

Similar letters of reference indicate corresponding parts throughout the several views.

A A represent the transverse bars, and B B the longitudinal bars, constituting the frame of the curtain-stretcher. Each of said bars has a row of pins *c* on its inner longitudinally-rabbeted edge *c'*, whereby the edge of the lace curtain E is fastened to the frame preparatory to drying and stretching the same. The crossed or overlying outer ends of adjacent bars of the frame may be adjustably connected in any suitable manner—for instance, as shown in the drawings, by means of thumb-bolts F, passing through longitudinal slots *f* in the bars. Each of the transverse bars is comparatively short and constructed in one piece; but the longitudinal bars owing to their greater length are each divided and constructed of two pieces or sections *b b'*, which are detachably connected to permit of greater compactness in storing or shipping the same.

My improved joint serves to connect the sections of each longitudinal bar and is constructed as follows: The opposing ends of the sections of each longitudinal bar are reduced, so as to form tongues G G' thereon. The tongue G of the section *b* forms an extension of its back or under side, while the tongue G' forms an extension of the front or upper side of the other section *b'*. These tongues overlap one another in the form of a scarf-joint and are detachably connected, preferably by two thumb-bolts H passing through the same. Each of the tongues bears at its outer or free end against the shoulder formed at the base or inner end of the opposing tongue.

In order to render the scarf-joints more rigid and prevent the sectional bars from being distorted or bent inwardly at the joints by the pull of the curtain on the same, the coöperating shoulders of the tongues and bars are so constructed that they are capable of more effectually resisting inward pull on the sectional bars at the center thereof. For this purpose the outer end or shoulder *i* of the tongue G and the shoulder *i'* at the base of the tongue G' are oblique or inclined in one direction, while the outer end or shoulder *j* of the tongue G' and the shoulder *j'* at the base of the tongue G are oblique or inclined in the opposite direction, the relative arrangement of the two pairs of shoulders being such that they converge inwardly or in the direction of the pull of the curtain, as shown in Figs. 1 and 2. By this construction of the shoulders the bearing-surface thereof is materially increased and the joint is stiffened against inward displacement without the addition of any extra parts and without increasing the cost of the joint. In order to also prevent lateral displacement of the tongues relatively to each other, the shoulders *i' j'* at the base of the tongues are undercut on an incline or bevel and the shoulders *i j* at the ends of the tongues coöperating therewith are correspondingly chamfered or beveled to fit said undercut shoulders, as shown in Fig. 3. By this means the end of each tongue is securely interlocked with the opposing section, preventing lateral displacement of these parts relatively to each other and producing a joint which is as strong as any part of the bar.

I claim as my invention—

1. A curtain-stretcher comprising a divided bar the sections of which are connected by a joint consisting of reduced portions or tongues arranged on the inner opposing ends of said sections, each tongue having oblique shoulders at its inner and outer ends which converge toward the inner side of the respective section, said tongues overlapping each other and each bearing with its oblique outer shoulder against the oblique inner shoulder of the other tongue, and means for detachably connecting said tongues, substantially as set forth.

2. A curtain-stretcher comprising a divided bar the sections of which are connected by a joint consisting of reduced portions or tongues arranged on the inner opposing ends of said

sections, each tongue having oblique shoulders at its inner and outer ends which converge toward the inner side of the respective section, each tongue having its inner shoulder undercut on a bevel and its outer shoulder beveled correspondingly and said tongues overlapping each other and each engaging its oblique beveled outer shoulder with the oblique undercut inner shoulder of the other tongue, and means for detachably connecting said tongues, substantially as set forth.

Witness my hand this 26th day of January, 1905.

FREDERICK M. HAYNES.

Witnesses:
THEO. L. POPP,
E. M. GRAHAM.