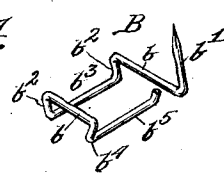
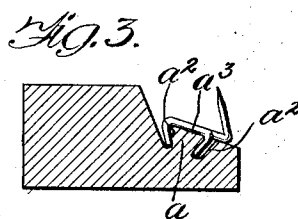
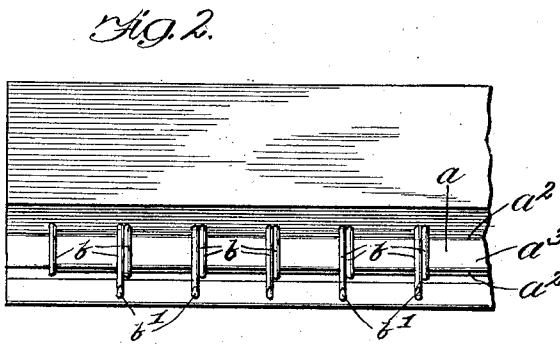
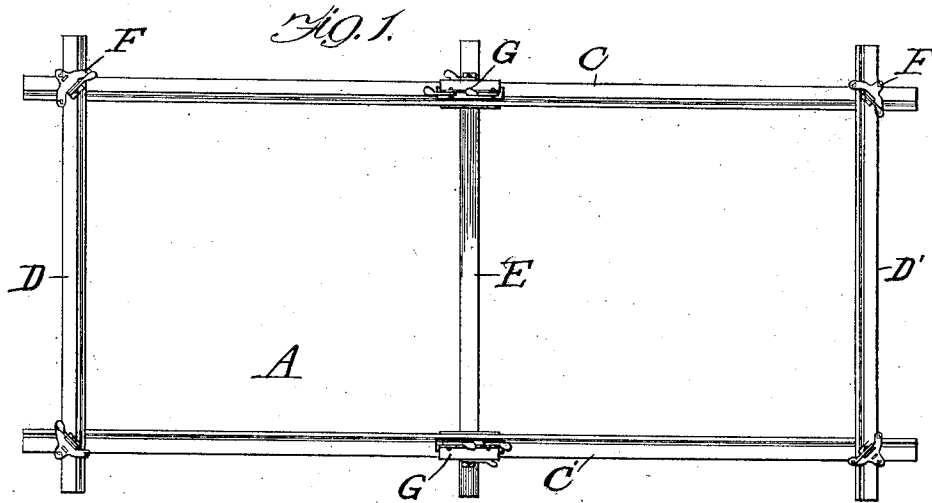


M. E. SHINN.  
CURTAIN STRETCHER.  
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1,058,913.

Patented Apr. 15, 1913.



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# UNITED STATES PATENT OFFICE.

MARTIN E. SHINN, OF CHICAGO, ILLINOIS.

CURTAIN-STRETCHER.

1,058,913.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed October 10, 1908. Serial No. 457,104.

*To all whom it may concern:*

Be it known that I, MARTIN E. SHINN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curtain-Stretchers, of which the following is a full, clear, concise, and exact specification, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improvements in curtain stretchers in which heretofore the bars are provided with opposing grooves into which project legs from the curtain retaining pin devices, whereby the pins are non-detachable therefrom accidentally, and may be adjusted at predetermined intervals on said bar, and in which said grooves converge outwardly toward their bottom ends, so that there is formed between the grooves for the pins a seat which has a substantially sharp edge, not only correspondingly unstabled but prohibiting a frictional hold of the pins against their seat, sufficient to prevent their accidental movement out of adjustment, especially when the frame is ever tilted or taken apart, and providing for the adjustment of the pins only by taking hold of their pointed prong, with the consequent liability of the operator to have his hands pricked by the pins and as frequently occurs in such structures.

The object of my invention is a curtain stretcher in which the curtain retaining pins are supported on and suspended from accidental detachment from a base, the pin supporting face of which is substantially broad and flat, with its sides so formed that the retaining pins are not only prevented from accidental displacement therefrom, but that they may be prevented from accidental movement thereon by frictional engagement with the inner side faces of their support, which support provides for accessibility to the pin structure for its adjustment in the absence of any necessity for taking hold of their pointed prongs.

With these ends in view, my invention finds embodiment in certain features of novelty in the construction, combination and arrangement of parts by which the said objects and certain other objects are herein-after attained, all as fully described with reference to the accompanying drawings,

and more particularly pointed out in the claims.

In said drawings: Figure 1 illustrates a top plan view of a curtain stretcher embodying my invention. Fig. 2 is an enlarged detail section of one of the bars thereof. Fig. 3 is a transverse section thereof showing one of the retaining pins seated upon and locked against accidental detachment from its base support; and, Fig. 4 is a perspective view of one of the curtain retaining pins detached from its bar.

Similar characters of reference indicate the same parts in the several figures of the drawing.

A indicates a curtain stretcher having the usual opposing side bars C, C', end bars D, D', cross bar E, corner locking irons F, F, F, F, and locking devices G, G, which may be constructed and operated in the usual manner heretofore employed, and with the end and side bars made of any approved material.

Extending longitudinally of and mounted upon a bar of the curtain stretcher, and preferably formed integral therewith, is a rail  $a$ , the face  $a^3$  of which is flat and broad, and its opposing side walls  $a^2$ ,  $a^2$ , converging from the face of the rail toward the base thereof, as clearly indicated in Fig. 3. In short, the rail in cross section is of a form providing for the support of a curtain retaining pin structure, which, when in operative position on the rail, is held against detachment therefrom and tilting thereon, and for a frictional engagement of the pin structure simultaneously with both side walls of the rail, preventing their being accidentally moved along the rail from their adjusted position, and with the pointed prong of the pin in a direction tending to tighten the frictional hold of such structure upon the sides  $a^2$ ,  $a^2$  of the rail, and against a tilting movement with reference to the base supporting surface therefor of the rail.

As will be seen by reference to Fig. 4, B indicates a curtain retaining pin structure, adapted for the purposes above described, and which, as above indicated, comprises a pointed prong  $b'$ , supported from a clip composed of two end bars  $b$ ,  $b$ , and side bars  $b^3$  and  $b^5$  in a plane below but parallel with the end bars, the side bars and end bars being connected by legs  $b^2$ ,  $b^4$ , which, at the

outer ends of the clip converge inwardly as shown, and whereby the end bars are adapted to seat and lie flat upon the face of the rail  $a$  and the legs  $b^2$ , and  $b^4$ , and together with the side bars  $b^3$  and  $b^5$  may be suspended above the plane of the base of the rail, and be bent to both a locking and frictional contact with the sides of the rail.

The curtain retaining pin structure may be formed from any material adapted for its purpose, but is preferably constructed from a single piece of bent wire, the extreme portion of the lower end of which may be bent up to form a non-detachable leg, but it will be no substantial departure from my invention to have such leg secured in any manner desirable to the body of the wire from which it is bent.

As a means by which the pin structure or any number of them may be moved beneath a bar directly over another bar, upon which it is mounted, I have illustrated my invention, as will be seen, by reference to Fig. 3, in connection with a bar in which it has been the practice to cut away the inner upper edge thereof for that purpose, the cut being so formed as to retain as much of the bar as possible for strengthening purposes, and by reason of this producing the impression at a casual glance that grooves are necessary for sustaining the curtain retaining pins upon the bar, but which is not true, for obviously the walls of the bars directly oppose the legs of the pin structure and the side walls of the rail perform no function tending to maintain the pin structure upon the rail, or any frictional contact resisting their accidental movement along the rail, and that it is equally obvious that the rail will sustain and maintain the pin structure above described even though it were mounted upon the top face thereof, and furthermore that even if the face of the rail be horizontal instead of inclined, the maintaining of the same line of strain of the curtain upon the pins (shown in Fig. 3) may be provided for by shifting the angle of the pointed prong of the pin by bending it accordingly.

In the use of my invention the bars of the curtain stretcher are provided with the necessary number of pins for the perfect stretching of the largest size curtain for which the frame of the stretcher is made, and the pins are adjusted and properly spaced by pushing against one or the other

of the end bars  $b$ , or taking a hold of both with the finger and thumb by the operator standing beyond the frame, and for which purpose it will be seen that free access may be had to these end bars without any necessity for the fingers or hand of the operator coming in contact with any portion of the pointed prong of the curtain retaining device. When this adjustment of the pin retaining device is once made for several curtains of the same dimensions, it will be found that if the pin structure is made and fitted to its rail with ordinary care and skill, it will not be accidentally moved out of its adjustment, either when engaging or disengaging a curtain therefrom, first because of the broad flat surface support afforded for the pin structure and their frictional resistance upon the sides of the rail against their movement thereon, and second because the pins are locked at one corner of a rectangular sustaining structure, with the result that blows and strains directly laterally against the pins will tend to tighten its frame upon the rail.

Having described my invention, what I claim and desire to secure by Letters Patent is:—

1. The combination with a curtain stretcher bar, of a rail mounted thereon having a flat surface and sides converging to the base thereof, a curtain retaining pin structure of wire seated on and suspended from the face of the rail and provided with opposing prongs both of which terminate above the base of the rail and converge at an angle corresponding with and embracing both sides of the rail, substantially as described.

2. The combination with a curtain stretcher bar, of a rail mounted thereon provided with a flat surface, side walls converging from said surface to the base of the rail, a curtain retaining pin structure, the base portion of which is substantially rectangular in form, seated upon and suspended from said rail, and the pointed prong of which projects therefrom at or near one of the corners of said base frame, substantially as and for the purpose described.

MARTIN E. SHINN.

Witnesses:

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