Oct. 21, 1947. W. W. BLOCK 2,429,256

CURTAIN STRETCHER

Filed March 23, 1944

Fig. 1.

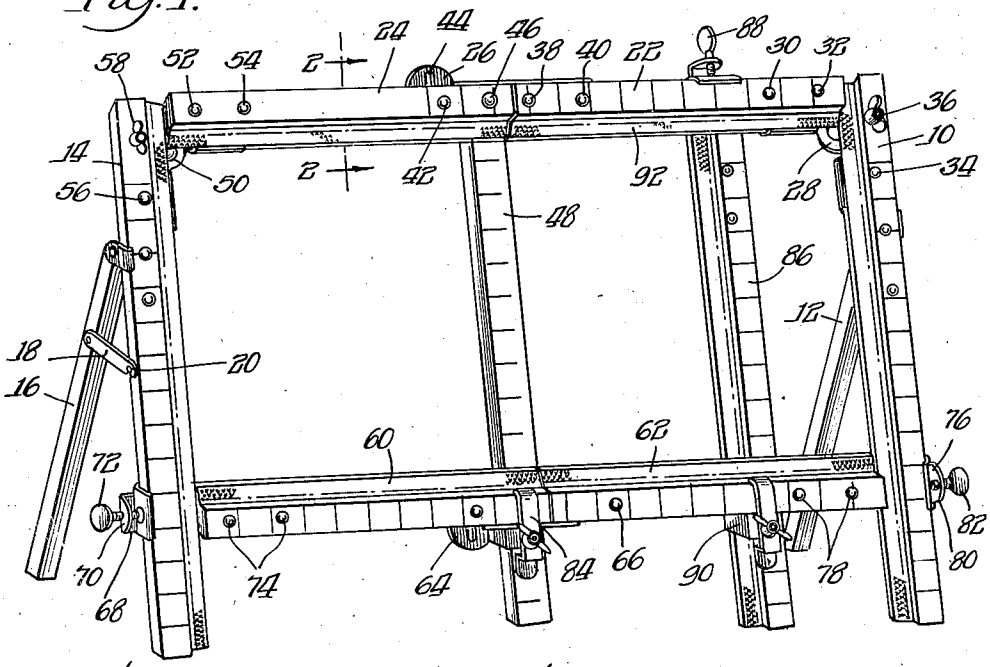


Fig. 2.

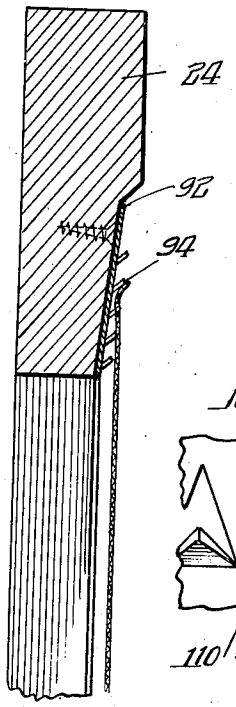


Fig. 3.

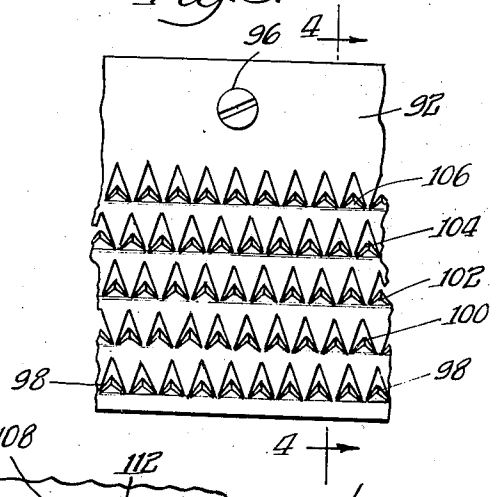
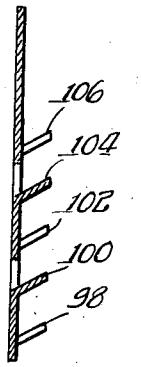


Fig. 4.



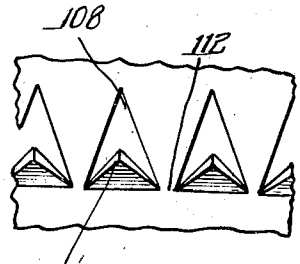


Fig. 5.

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CURTAIN STRETCHER

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4 Claims. (Cl. 45—24)

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The present invention relates to improvements in curtain stretchers and more particularly to a novel construction of the means upon which the edge of a curtain is impaled.

Heretofore it had been common to provide curtain stretchers with a row of impaling pins along the inner edge of the curtain stretcher frame. Such an arrangement requires a precise adjustment of the curtain frame to the exact dimensions of the curtain to be placed thereon. It frequently occurs that where pairs of curtains are to be placed upon a frame that there are small or minute differences in the dimensions which make it difficult to stretch the curtains. In order to avoid this difficulty and further to avoid the necessity for extreme accuracy in adjusting the curtain stretcher frame to the desired dimensions, there is provided in accordance with the present invention a curtain impaling device adjacent the inner edge of a curtain stretcher frame which is provided with a plurality of parallel arranged impaling devices so that within the limits of the inner and outer rows of such impaling members, it is unnecessary to further adjust the frame of the curtain stretcher.

In accordance with the present invention a curtain impaling device is provided with a plurality of closely adjacent rows of impaling members arranged in parallel planes and integrally formed of a sheet of corrosion and rust resistant metal.

Further in accordance with the present invention such device is mounted upon a curtain stretcher frame having an inclined surface so that a selected row of impaling members is readily utilized for a particular curtain since in effect the outer limits of the points of the impaling device are at different altitudes from the plates of the curtain stretcher frame.

It therefore is an object of the present invention to provide an improvement in curtain stretchers whereby it will be unnecessary to adjust the curtain stretcher frame for small variations in dimensions.

It is another object of the present invention to provide an improved curtain impaling device which is relatively simple to manufacture and to attach to a curtain stretcher.

Other and further objects of the present invention subsequently will become apparent by reference to the following description taken in connection with the accompanying drawing wherein

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Figure 1 is a perspective view of a curtain stretcher provided with the present invention;

Figure 2 is a cross sectional view in the direction of the arrows along the line 2—2 of Figure 1;

Figure 3 is a plan view of the curtain impaling device forming a part of the frame members of the curtain stretcher of Figure 1;

Figure 4 is a cross sectional view along the line 4—4 of Figure 3; and

Figure 5 is an enlarged detailed view of a portion of Figure 3.

Referring more particularly to Figure 1 of the drawing there is shown a curtain stretcher having an upright member 10 provided with a rearwardly extending leg 12. At the other end of the frame a similar upright member 14 is provided with a rearwardly extending leg 16. Each of the legs 12 and 16 are retained in fixed position by a pivoted bracket 18 which at its forward end is provided with a slot for engaging a headed member 20 secured to the side of the upright member such as the upright member 14. At the upper extremities of the upright frame members 10 and 14 there are secured horizontally arranged members 22 and 24 joined together by a plate-like member 26. The member 22 is connected to the frame member 10 by a right angled plate-like member 28 which is rigidly secured to the member 22 by two bolts or rivets 30 and 32. The member 28 is pivotally connected to the member 10 by a bolt or rivet 34. A wing nut bolt 36 extends through the upper portion of the member 10 so as to engage a slot at the side of the plate 28 thereby to retain in position the member 10 in the assembled curtain stretcher frame. When it is desired to disassemble the frame the wing nut member 36 is loosened and the member 10 may be swung around so as to be parallel to the member 22. The member 22 is rigidly secured to the plate 26 by a pair of bolts or rivets 38 and 40. The plate 26 is pivotally connected to the member 24 by a bolt or rivet 42 which is arranged to operate in a slot 44 in the plate 26. A bolt 46 extends from the front of the member 24 through an aperture in the plate 26 and through an intermediate generally vertical member 48 and is secured by a wing nut. The upper member 24 is rigidly mounted on a plate 50 by two bolts or rivets 52 and 54. The plate 50 is pivotally secured to the upright member 14 by a bolt or rivet 56. A wing nut fastening device 58 extends through the upper portion of the member 14 to the plate 50 where it engages a slot so that upon loosening the wing

nut 58 the member 14 may be moved so as to be parallel to the member 24. It thus becomes apparent that the curtain stretcher thus far described has members 10, 14, 22, and 24 which may be arranged parallel to each other when the curtain stretcher is to be demounted and stored away for further use. At the bottom side of the curtain stretcher frame there are provided generally horizontal members 60 and 62 which are pivotally interconnected by a plate 64 secured to the members 60 and 62 by suitable bolts and fastening means 66 in a manner similar to the manner in which the horizontal members 22 and 24 are interconnected by the plate member 26. At one extremity the member 60 is secured to a plate member 68 having an end portion 70 provided with a threaded aperture in which there is mounted a clamping screw 72. The plate 68 is secured to the member 60 by suitable bolts or rivets 74 so that the end of the member 60 may be drawn up tightly against the inner side of the upright member 14 by manipulation of the clamping member 72. The lower horizontal member 62 is provided adjacent its end with a plate 76 secured thereto by rivets or bolts 78. The plate 76 is also provided with an end portion 80 which supports a clamping screw 82 for clamping the member 10 between the end of the horizontal frame member 62 and the clamping member 82. The intermediate support or guide member 48 is secured to the members 60 and 62 by a clamping device 84. Between the vertical member 48 and the end frame member 10 there is arranged an adjustable vertical member 86 secured at the top by a clamp 88 to the member 22 and at the bottom by a clamp 90 to the member 62. By adjusting the various clamps it of course becomes apparent that the areas delineated by the members 14, 22, 24, 60, 62, and 86 may be set so as to conform generally to the measurements of a curtain which is to be stretched thereon.

Each of the vertical and horizontal frame members which may comprise the outer limits of an area having measurements equal to the dimensions of a curtain are provided at their inner edges with curtain impaling means 92. The details of the curtain impaling means 92 will be better appreciated by reference to Figures 2 to 5 inclusive from which it becomes apparent that the member 92 is formed of a flat sheet of material which is secured to an inclined surface 94 of a frame member such as 24 by suitable fastening means such as screws 96. At the inner edge of the fastening member 92 there is arranged a row of impaling members 98. Successive rows 100, 102, 104, 106 are arranged above the row 98. The impaling members in a row are staggered in relation to the impaling members in adjacent rows. Each of the impaling members comprises a pointed upwardly extending member integrally formed from the sheet comprising the base member 92. The manner of construction will readily be appreciated by reference to Figure 5 wherein it will be seen that the plate 92 is provided with a plurality of apertures such as the aperture 108 which has a generally triangular configuration and which is formed by cutting or punching two of the edges of the aperture and bending the remaining material upwardly. The remaining material which is bent upwardly comprises the pointed impaling member 110. It furthermore will be seen that the adjacent apertures such as 108 are slightly spaced apart so as to leave small areas 112 between the apertures.

While a particular embodiment of the invention has been shown to facilitate illustration and description, it is to be understood that it is not to be limited thereby since such variations may be included as commensurate with the scope of the appended claims.

The present invention is hereby claimed as follows:

1. In an adjustable curtain stretcher having a plurality of frame members each provided with an inclined surface adjacent the inner area of said frame, a curtain engaging device mounted on said surface and comprising a narrow elongated rectangular sheet of metal having a plurality of rows of punched struck-upwardly pointed members of generally triangular shape arranged at an acute angle relative to the remainder of said sheet.

2. In an adjustable curtain stretcher having a plurality of frame members each provided with an inclined surface adjacent the inner area of said frame, a curtain engaging device mounted on said inclined surface and comprising a narrow elongated sheet of metal having a plurality of parallel rows of closely adjacent punched struck-upwardly pointed members for the impalement of the edges of a curtain thereon, said pointed members being arranged at acute angles relative to said sheet so as to point away from the inner area of said frame.

3. In an adjustable curtain stretcher having a plurality of frame members each provided with an inclined surface adjacent the inner edge of said frame, a curtain fastening device fixedly mounted on said inclined surface, said device being formed of a strip of rust and corrosion resistant sheet metal, said device having a plurality of longitudinally extending rows of generally triangularly shaped members punched from said strip and formed integrally therefrom, said triangularly shaped members being adapted for selective engagement of a curtain by impalement thereon whereby said device obviates the need for minute adjustment of said frame within the limits of inner and outer rows of said member.

4. An adjustable curtain stretcher having a plurality of frame members interconnected by adjustable clamping means, said frame members each being provided adjacent the inner edge with an elongated strip of corrosion and rust resistant sheet metal having an edge border portion provided with spaced apertures having fastening means therein to secure said strip to said frame members and a parallel portion comprising the remaining area of said strip to the other edge having formed therein a plurality of longitudinal rows of punched struck-upwardly acute angle triangle pointed members arranged in acute angles to said strip so as to point toward the outer edge of the frame member, the pointed members in each row being spaced apart a distance which is a small fraction of the base dimension of each pointed member, the base of each pointed member being parallel to the edges of said strip, adjacent rows having the pointed members staggered relative to each other and alternate rows having the pointed members arranged in transverse alignment, said rows being adjacently positioned whereby said pointed members are arranged so that the points of successive rows extend progressively outward from the inner row to the outer row and are adapt-

ed for selective engagement of a curtain by impalement, thereby to obviate the need for minute adjustment of the frame members of the curtain stretcher within the limits of the space between the inner and outer rows of said pointed members.

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