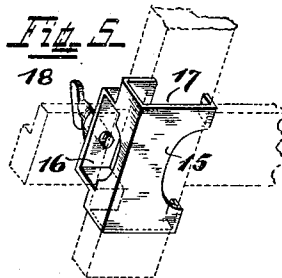
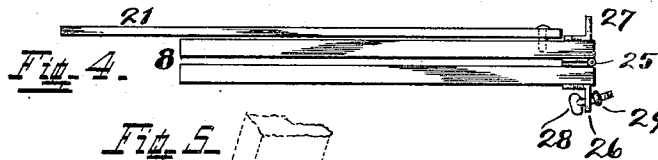
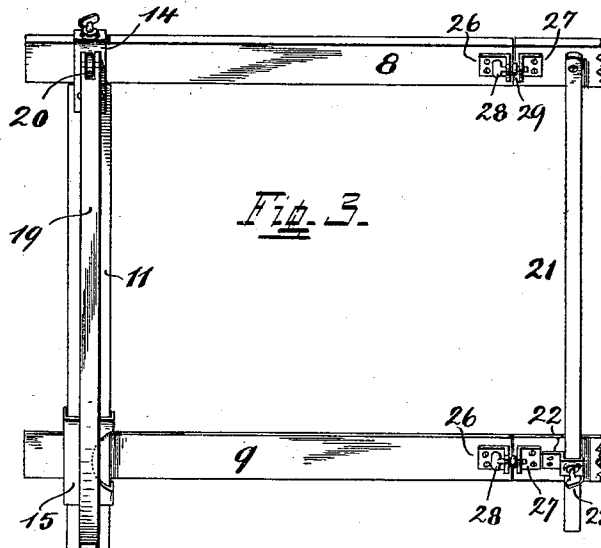
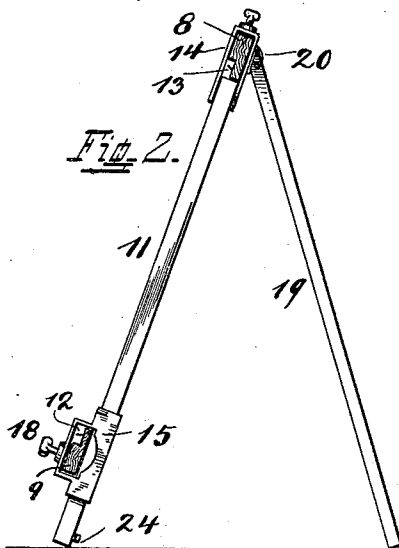
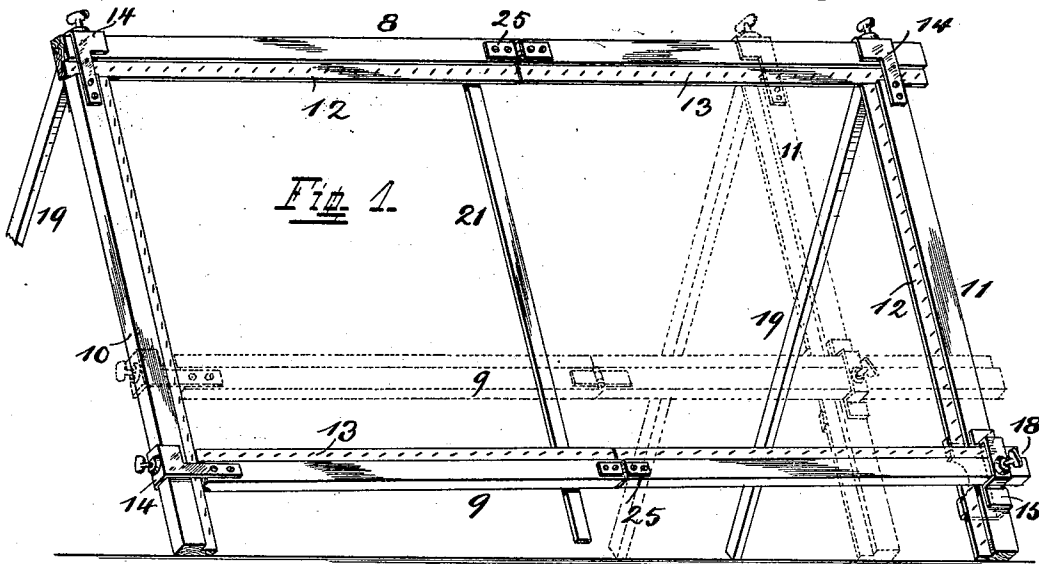


(No Model.)

W. NIEMAND.
CURTAIN STRETCHER FRAME.

No. 544,049.

Patented Aug. 6, 1895.



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UNITED STATES PATENT OFFICE.

WILHELM NIEMAND, OF NEWPORT, KENTUCKY.

CURTAIN-STRETCHER FRAME.

SPECIFICATION forming part of Letters Patent No. 544,049, dated August 6, 1895.

Application filed May 3, 1895. Serial No. 547,960. (No model.)

To all whom it may concern:

Be it known that I, WILHELM NIEMAND, a citizen of the United States, and a resident of Newport, Campbell county, State of Kentucky, have invented certain new and useful Improvements in Curtain-Stretcher Frames; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

This invention relates to improvements in curtain-stretcher frames which are substantially frames of adjustable size, upon which lace curtains are attached or stretched after having been washed, the object being to prevent the curtains from shrinking or becoming wrinkled while drying, and thereby dispensing with their subsequent pressing or ironing for the purpose of making them smooth. Lace curtains come in various sizes, and therefore it is necessary that the size of the frames should be adjustable to accommodate itself to the size of the curtains. The frames should also be collapsible to permit them to be conveniently stored away after use, because when set up they are rather bulky, a size of six by twelve feet being the most frequent one.

The features of my invention relate to an improved, simplified, and cheaper construction whereby these two requirements—that is, adjustability and collapse—are accomplished in a convenient and ready manner.

In the following specification, and particularly pointed out in the claims, is found a full description of my invention, its operation, parts, and construction, the latter being also illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of the frame complete and set up ready for use. Fig. 2 is an end view thereof in the same condition. Fig. 3 is a rear elevation of the middle portion of it. Fig. 4 is a view of one of the long rails detached and folded up ready for storage after use. Fig. 5 is a perspective detail view of one of the fittings detached.

As already stated, this frame is a collapsible one, consisting, substantially, of four

rails—two longer and two shorter ones—and is provided with suitable fittings, whereby the rails may be connected to form the frame complete. The longer rails are in two sections hinged together and may be folded or doubled up to reduce their length for convenient storage when the frame is not in use. They are provided with special fittings by which to be rendered rigid when the frame is to be formed.

In the drawings, referring particularly to Fig. 1, 8 is the upper and 9 the lower one of the longer rails, while 10 and 11 are the shorter ones. Considering them as connected to form the frame, their inner edges on one side are rabbeted, as shown at 12, and provided with pins 13 in the customary manner, such pins by being secured in the deeper or rabbeted part of the rails permitting a closer packing of the latter when not in use, and by not projecting beyond the thickness of the rails they are protected as well as prevented from forming an obstructing object liable to cause damages by contact. At one end, and as shown in the drawings preferably at their upper one, the short rails are provided with fittings 14, which for the purpose of their connection overlap such ends and also project beyond them in form of open loops to receive the upper long rail 8. A similar fitting is provided at one end of the lower rail, by which such end is connected to rail 10. Connection of its other end to rail 11 is made by a special fitting 15, constructed in a manner to have two receiving portions 16 and 17 at right angles to each other and one below the other one. The upper one receives the other end of rail 9, while the lower one receives the lower end of rail 11. There is no metal or part of the fitting where the rails cross each other, they lying directly against each other, so that by the impinging action of set-screw 18, when the same is screwed in, the two rails may be held in position within the fitting. Unlike the other fittings, this last one is not secured to any rails, and when for purposes of adjusting the width of the frame rail 9 is moved up or down on the shorter rails fitting 15 is free to follow during such adjustment. When for adjusting the length of the frame rail 11 is moved in or outwardly, the fitting follows again, so that whenever the proper

adjustment is obtained it is found in proper position and all that remains to be done is to tighten the set-screw. Similar screws are provided on all the other fittings, which after adjustment to the proper dimensions of the frame are tightened. The adjustment should be somewhat in excess to the size of the curtain, so that in order to place the latter in position on the pins it is necessary to stretch it somewhat, whereby it is caused to dry under tension and becomes perfectly smooth.

As will be observed, for adjustment of either length or width it is only necessary to move one rail, and in no case is it required to adjust the length of any rail individually, whereby cumbersome fittings are avoided and greater stability, simplicity, and cheapness result.

While the frame is in use, it is preferably supported in an inclined position to permit free access of air to the drying curtains, for which purpose props 19 are provided, which are hinged to lugs 20, projecting from the rear side of each of the fittings secured to the short rails.

To stiffen the frame midway and prevent the long rails from sagging down, they are connected by a brace 21, which is pivotally and permanently secured to one of the long rails, preferably rail 8, and after adjustment its lower end is swung under the jaw of a stationary clamp 22, in which position it is secured and held by a set-screw 23.

After use, when the frame is not needed any more, all the set-screws are loosened and the rails are taken apart in a manner which readily suggests itself. Props 19 are laid against the rails to which they are hinged and the long rails are doubled up, brace 21 in case of the upper one being brought in line with the sections thereof, as shown in Fig. 4, and, if desired, the whole may be tied in a bundle and stored away.

To prevent fitting 15 from dropping off entirely and becoming misplaced, a stop 24 is provided at the lower end of rail 11, which prevents such.

In order to hold the two sections of the long rails which are secured to each other by hinges 21 rigid when used to form the frame, I provide flanges 26 and 27 on the side reverse to the one where the hinges are, whereby when they are connected by means of a screw 28 carried by flange 26 and passing in a screw-threaded hole in flange 27 they may

be drawn toward each other until the hinged ends of the sections come fully in contact with each other, in which position they are held now by screw 28. 29 is a collar on the latter to prevent it from dropping out of its opening in flange 26, it being carried only loosely by the latter and no screw-thread being provided in the opening therein.

Having described my invention, I claim as new—

1. In a collapsible curtain-stretcher frame of adjustable size, the combination of two short and two long rails, fittings at the upper ends of the short rails to receive the upper long rail, fittings to support the lower long rail on the short sides, each of the long rails being in two sections which are hinged together by hinges 25, flanges 26 and 27 at the reverse side of the sections near their meeting ends and projecting at right angles therefrom, a screw 28 carried loosely by one of the flanges of each set, a collar 29 on each screw whereby in conjunction with its handle it is confined to the flange by which it is carried and a screw-threaded opening in the other flange adapted to be engaged by screw 28 for the purpose of drawing the two rail-sections endwise together to render them rigid.

2. In a collapsible curtain stretcher frame of adjustable size, the combination of two short rails with fittings at their upper ends, a long rail 8, adapted to be received by them, a long rail 9, also supported on the short rails, being provided for such purpose at one end with a permanently secured fitting and resting near its other end in a loose fitting adjustable on either of the rails meeting thereat, the long rails being in two sections connected by hinges 25, flanges 26 and 27 projecting rearwardly from the sections near their meeting ends, a screw 28 carried loosely by one of the flanges in each set, a collar 29 on each screw whereby in conjunction with its handle it is confined to the flange by which it is carried and a screw-threaded opening in the other flange adapted to be engaged by screw 28 for the purpose of drawing the two rail-sections endwise together.

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

WILHELM NIEMAND.

Witnesses:

L. SPEER,
C. SPENGEL.