

(No Model.)

M. LYNCH.
CORNER IRON FOR FRAMES.

No. 566,593.

Patented Aug. 25, 1896.

Fig. 1.

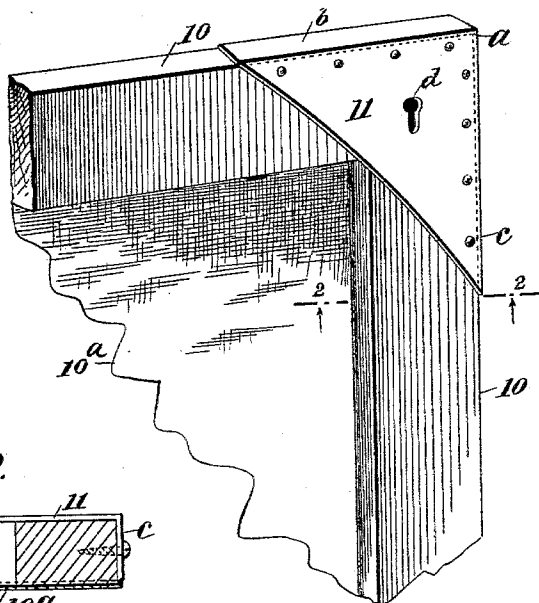


Fig. 2.

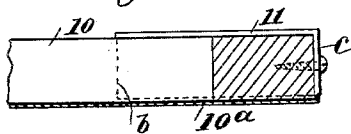
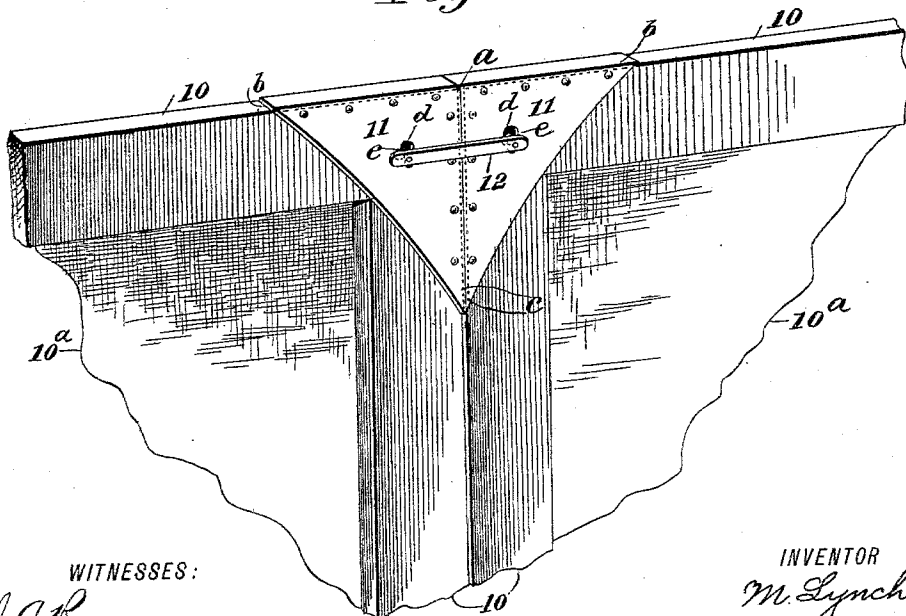


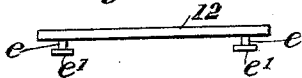
Fig. 3.



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Fig. 4.



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CORNER-IRON FOR FRAMES.

SPECIFICATION forming part of Letters Patent No. 566,593, dated August 25, 1896.

Application filed May 20, 1896. Serial No. 592,295. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW LYNCH, of New York city, in the county and State of New York, have invented a new and Improved Corner-Iron for Frames, of which the following is a full, clear, and exact description.

This invention relates to an improved means for strengthening the corners of rectangular frames and adapting said frames for easy and secure connection at their edges if this is desired.

The improvement is especially well adapted for stiffening the corners of light wooden frames used in support of the scenery on stages of theaters, and for detachably locking together any desired number of such frames when occasion renders this necessary.

The invention consists in the construction and combination of parts, as is hereinafter described, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improved corner-iron applied to one corner of a scene-frame. Fig. 2 is a transverse sectional view substantially on the line 2 2 in Fig. 1. Fig. 3 is a perspective view of corner portions of two scene-frames and two of the improved corner-irons thereon in a locked condition, and Fig. 4 is an enlarged detached edge view of a locking bar or link used to connect two frames having the improved corner-irons.

In the drawings, 10 represents a corner portion of a scene-frame composed of two comparatively light wooden strips that are joined by one end of each at a right angle, as usual, to produce a rectangular frame when it is completed. It is very essential that the frames whereon scenery of a theater is stretched should be light and strong, these properties being subjected to very rough usage, particularly if moved from one town to another for use of a traveling theatrical company.

The improved corner-iron represented in the drawings at 11 is light, very strong, and renders the corners of a frame very substantial, protecting these parts of the frame from injury and holding the joined members of

the frame rigidly at right angles to each other at the corners of the frame. The corner-irons being similar for all the corners of a frame, but one of said improved irons need be described, and, as clearly represented, the improved corner support consists of a triangular thin metal plate having one corner right-angled. The two edges of the plate 11, which at their junction form the right-angular corner *a*, have each a flange produced thereon, as shown at *b c* in the drawings, said flanges being turned in the same direction, whereby they are adapted to embrace the edges of the frame-strips where they are joined. The plate 11, that is, the main portion of the corner-iron, is preferably secured on the side of the frame opposite from that whereon the scenery material 10^a is secured, and for efficient service the flanges *b c* may and preferably are afforded a breadth about equal with the thickness of the frame-strips. The plate 11 is perforated at spaced intervals near each flange *b c* for reception of screws, which are used to secure the corner-iron on the frame corners, or nails that may be clinched can also be used to affix the corner-irons upon the frame.

An essential feature of the improvement consists in providing simple and effective means for detachably joining together impinging edges of two frames, as it is frequently necessary to so connect two or more frames where a set scene is of considerable length.

The improved locking device for connection of two scene-frames is shown in Figs. 1 and 3, and consists in providing each plate 11 with an oblong aperture *d*, that is substantially wedge-shaped, its edges slightly converging from one end toward the other end. The apertures *d* in two corner-irons that are on frames 10, which are to be secured together at impinging edges, as shown in Fig. 3, extend their narrow ends in the same direction, and these oblong holes are nearly parallel with each other and with the upright impinging edges of the frames mentioned.

For each pair of the improved corner-irons that are to be joined together a link-bar 12 is furnished. Said bar, which is clearly shown in Fig. 4, consists of an elongated flat strip of metal having two studs *e* projected from the same side thereof near the ends, these studs

having a head-like enlargement e' on each that is formed at the free end of the same. The distance between the studs e is so relatively proportioned that they will be permitted to enter the larger upper end portions of the oblong apertures d of the plates 11 and bead on the side edges of said apertures that are nearest each other when the frames 10 that are to be connected have their edges impinged, as shown in Fig. 3. It will be evident that if the link-bar 12 is forced downwardly, so as to press the studs e against the edges of the apertures d that are nearest each other, and which slightly diverge toward their lower ends, said bar will be adapted to draw the impinged edges of the frame members 10 into forcible contact, and if there be a similar provision at the corners of the frames that are below those locked together, as explained, it will be seen that the two frames will be firmly united and practically become one frame. The formation of the flanges $b c$ on the right-angular edge of the plate 11, so as to adapt said flanges to embrace the outer edges of the frame members 10 when in place thereon, affords a metallic facing at two points on the frame that contact with similar facings on a frame that is to be clamped thereto, and thus renders the frames rigid where they are joined together, which would not be the case if the flanges were not located on the outer edge of the angular plate 11. It is obvious that when it is desired to detach two or more connected

frames 10 this can be quickly effected by driving the link-bars 12 toward the larger ends of the oblong apertures d of plates 11, so that the studs e may be released. It should be explained that to facilitate the introduction of the studs e there should be slight depressions produced in the frame members 10 opposite the apertures d to receive the heads e and permit them to slide on the inner side of each plate 11.

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

The combination with the corner portions of two rectangular frames, of two similar corner-irons secured thereon, each corner-iron comprising a flat triangular plate having two integral flanges depending from the same side of said plate, and contacting with the edges of the frame whereon the corner-iron is secured, each corner-iron being provided with an oblong aperture the edges of which slightly converge, and a connecting-link for opposing corner-irons, consisting of an elongated bar having headed studs projecting from the same side of the bar and near the ends thereof, said studs being adapted to interlock with the sloped edges of the oblong apertures in the corner-irons, substantially as described.

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