(No Model.)

E. C. HUSSEY.

FRAME FOR WINDOW SCREENS, &c.

No. 420,724. Patented Feb. 4, 1890.

FIG. 1.

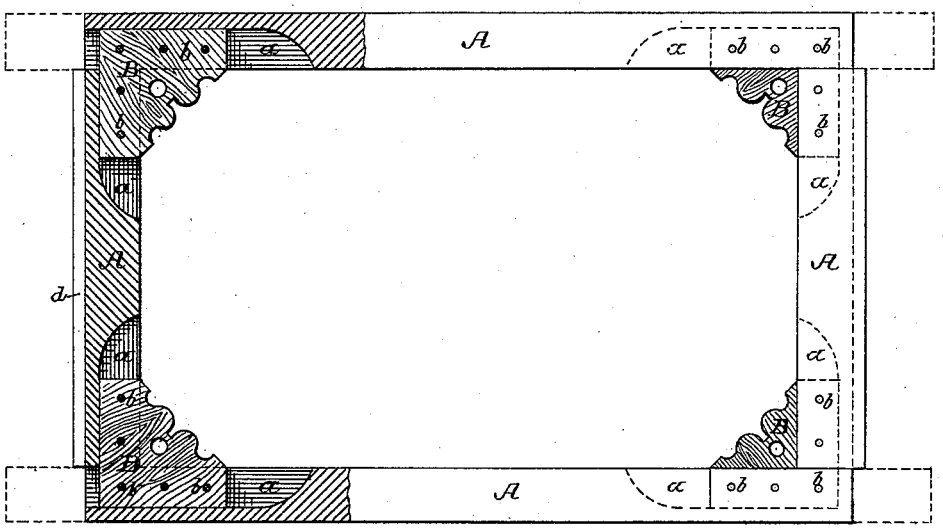
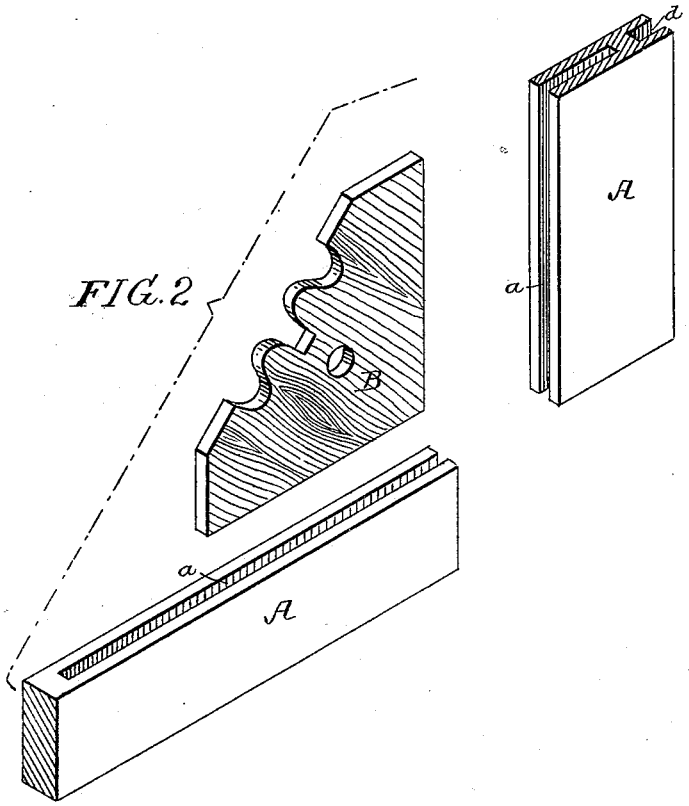


FIG. 2



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UNITED STATES PATENT OFFICE.

ELISHA C. HUSSEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOHN N. HUSSEY, OF SAME PLACE.

FRAME FOR WINDOW-SCREENS, &c.

SPECIFICATION forming part of Letters Patent No. 420,724, dated February 4, 1890.

Application filed January 3, 1889. Serial No. 295,271. (No model.)

To all whom it may concern:

Be it known that I, ELISHA C. HUSSEY, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Frames for Window-Screens, &c., of which the following is a specification.

The object of my invention is to furnish carpenters and others with screen-frame stock of such character that strong and neat screens of any desired dimensions may be readily made therefrom without the exercise of any particular skill. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a view, partly in section and partly in elevation, of a screen-frame constructed from my improved screen-frame stock; and Fig. 2 is a perspective view, on a larger scale, of the parts comprising one of the joints or corners of the frame.

In carrying out my invention I provide bars A of the proper width and thickness for the bars of the frame to be constructed, and preferably of the maximum length for the length and height of the particular grade of screen for which they are intended. For instance, in Fig. 1 the original length of the top and bottom bars is shown by dotted lines. Each of the bars A is mortised for some distance from each end, or to an extent required for the minimum size of screen to be made, and each mortise preferably consists of a saw-kerf or groove *a* in the inner side of the bar.

The bars A can be made in large quantities at the wood-working mill, and hence are extremely cheap.

In constructing the frame the bars A which are to form the horizontal or top and bottom bars of the frame are sawed off to the proper length for the frame to be produced, and the bars A which are to constitute the vertical or end bars of the frame are reduced to the proper length for the height of the frame to be produced. The various bars are then connected together at the corners by means of tenon-strips B, which are likewise made in quantities at the mill, each strip being of the proper size for the bars with which it is sold, and being, preferably, of the general triangular form illustrated in the drawings, so that when its outer portions are adapted to the saw-kerfs *a* in the vertical and horizontal bars A of the frame a portion of the strip will extend across from one bar to the other and will form a corner brace or bracket for the frame, thus not only materially adding to the strength of the frame at the joint, but imparting to said frame at the corners the ornamental finish desirable in this class of work. The tenon-strips may be secured to the bars of the frame by means of brads, screws, dowel-pins, or other equivalent fastenings *b*, passed transversely through the bars and strips, or said tenon-strips may be secured in place by gluing; or both the glue and the dowel-pins or brads may be used, if desired. By this means cheap, neat, and strong frames of any desired dimensions can be readily produced by any one possessing ordinary mechanical aptitude, no special skill being necessary, as the only operations to be performed are the sawing of the bars to length and fastening them and the tenon-strips together. As the tenon-strips are preferably of wood and are necessarily comparatively thin, it becomes a matter of importance to protect them as far as possible from injurious strain; hence these strips are so made that the grain of the wood runs at an angle to both the horizontal and vertical bars of the frame, as indicated by the shading-lines on said tenon-strips in the drawings, so that the strip is best calculated to resist the longitudinal and vertical strains to which it is subjected, and is therefore not liable to be split or broken by such strains.

The object of using as a mortise a saw-kerf in the inner edge of the bar is to prevent excessive weakening of the bars and to provide for the presentation of an unbroken surface at the outer edge of the same, although in the cheaper classes of screens a mortise extending completely through the bar may be used, if desired.

The bars which are to form the vertical bars of the screen are preferably provided with grooves *d* in the outer edges for the reception of the guide-strips on the sides of the window-frame.

While it is preferable to make up the stock

in bars of a certain length having mortises at the ends only, so that the bars of the frame will possess the strength due to the uncut central portion, the stock may in some cases be made up in long lengths—say twelve or fifteen feet—the saw-kerf constituting the mortise in the bar in such case extending from end to end of the same.

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

1. The combination of the horizontal and vertical bars of the frame, having their inner faces mortised at the meeting ends, with the right-angled corner-pieces, one edge of which is secured to the vertical bars and the other edge projecting beyond the ends of said vertical bars and sliding in and adapted to be secured in the groove of the horizontal bars, and extending from bar to bar across each corner of the frame, so as to form diagonal corner-braces, substantially as specified.

2. The combination of the vertical and horizontal bars of the frame, having their inner faces mortised at the meeting ends, with the wooden corner-pieces, one edge of which is secured to the vertical bars and the other edge projecting beyond the ends of the said vertical bars and sliding in and adapted to be secured in the groove of the horizontal bars, and having the grain running at an angle both to the vertical and horizontal bars of the frame, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ELISHA C. HUSSEY.

Witnesses:

WILLIAM D. CONNER,

HARRY SMITH.