(Model.)

J. JOSEPH.

Window Screen.

No. 232,725. Patented Sept. 28, 1880.

Fig: 1.

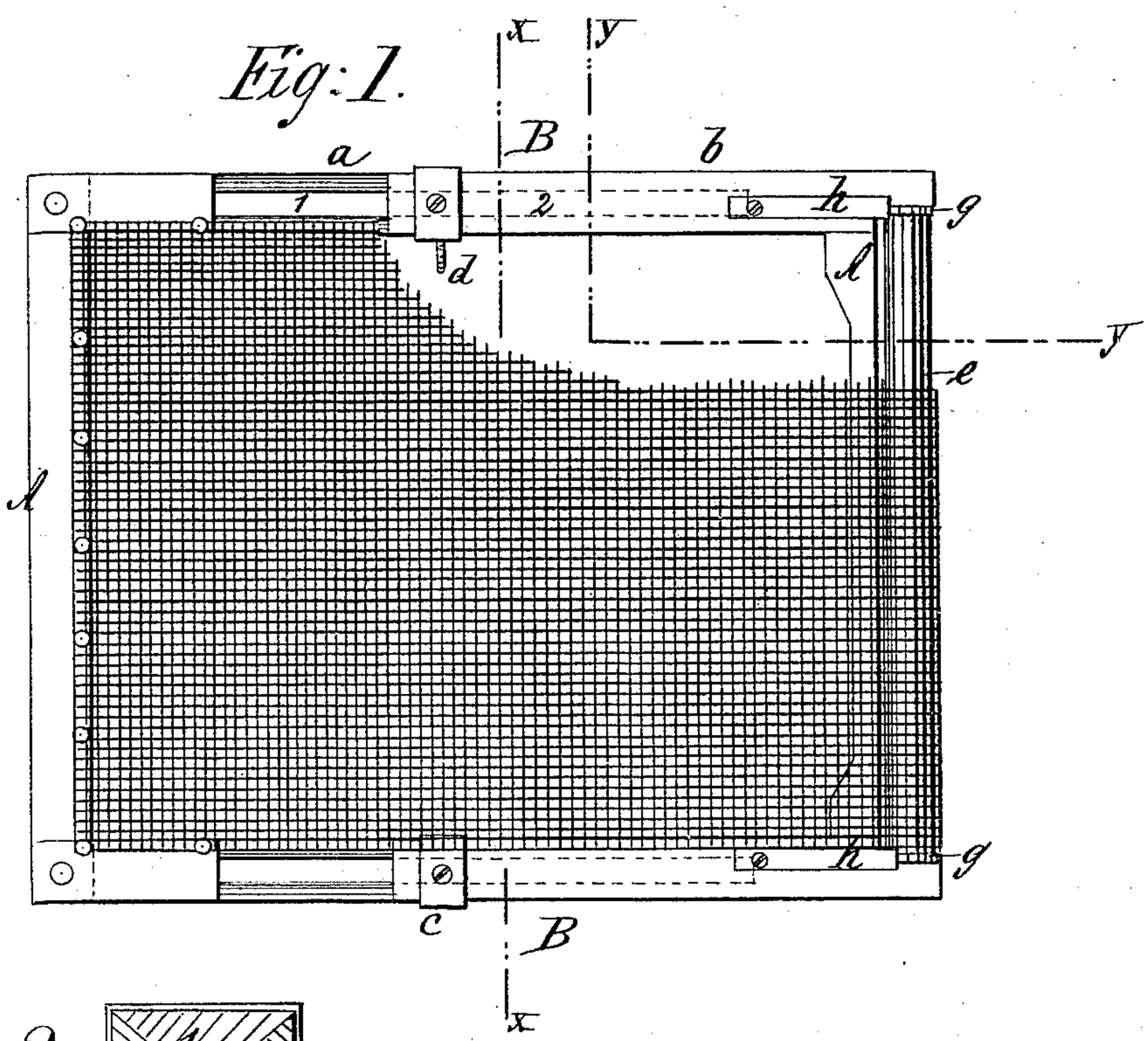


Fig: 2.

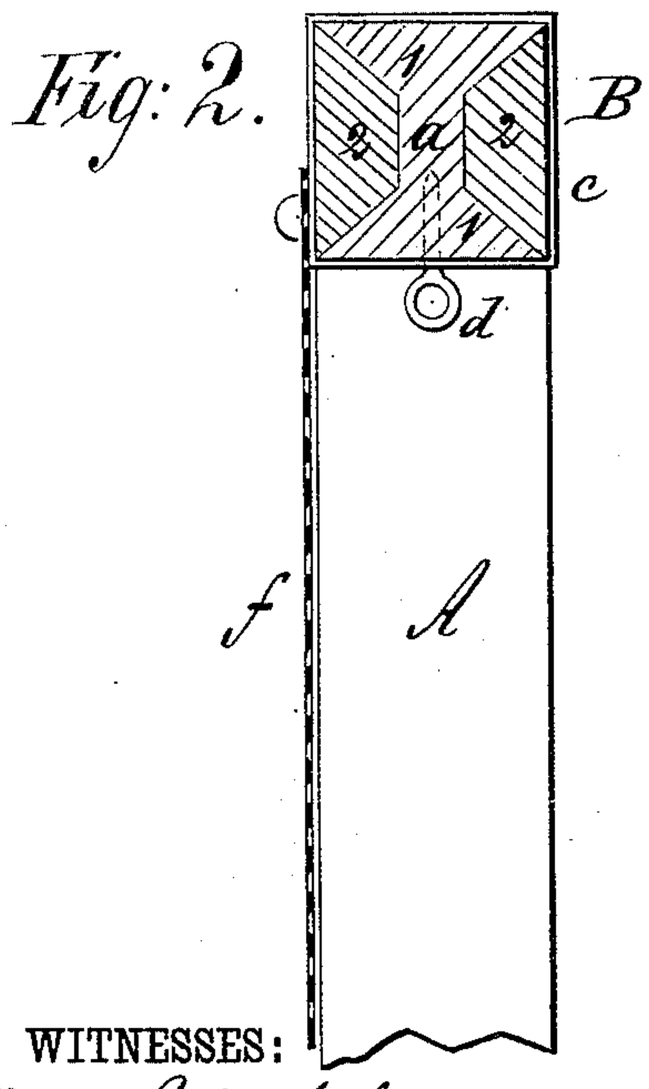
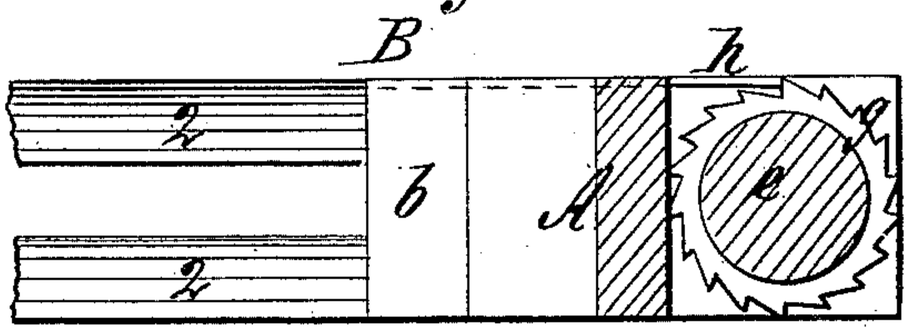


Fig: 3.



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JOHN JOSEPH, OF BROOKLYN, NEW YORK.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 232,725, dated September 28, 1880.

Application filed July 28, 1880. (Model.)

To all whom it may concern:

Be it known that I, JOHN JOSEPH, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Window-Screens, of which the following is a specification.

My improvements relate to extensible window-screens, and have for their object to furnish screens having extensive range of adjustment, uniformity in appearance of the frame in any position, and wide bearing-surfaces on the sliding portions.

My invention consists in an extensible frame jointed, by mitered tongues and grooves, on two opposite sides, and provided at one end with a roller for receiving the surplus netting, whereby the frame can be extended as required, and is equally strong in any position as moved.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of a window-screen constructed in accordance with my invention. Fig. 2 is a cross-section of the same on line *x x* of Fig. 1. Fig. 3 is a section on line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

The frame of the screen consists of end bars, A A, and side bars, B B. The side bars, B, are each made in two pieces, *a b*, attached to the end bars, A, and fitted together by tongue-and-groove joints, as next described, so that they can slide upon each other.

The portion *a* of each bar is grooved at front and back, as shown at 1, which grooves are nearly the full width of the bar on the face and taper inward, or are formed with beveled edges toward the bottom.

The portion *b* is slotted lengthwise, thereby forming tongues 2, that correspond in size and shape to the grooves 1, so that the grooved portion *a* can be entered between the tongues 2, thereby forming a mitered sliding joint wherein the parts are mutually supporting and have extensive bearing-surfaces.

To prevent the outer ends of tongues 2 from spreading, a metal band, *c*, is applied around each bar B, and attached to tongues 2 by pins or screws. The portions *a* at each inner side of the frame are provided with holes for a screw, *d*, that is to be inserted through bands *c*, for holding the frame as adjusted.

At one end of the screen-frame a roller, *e*, is journaled in the side bars, B. The netting *f* is to be attached on the end of the frame opposite roller *e* and wound on the roller, so that the frame is covered and the surplus wound on the roller.

On the ends of roller *e* ratchet-wheels *g* are fixed, which are engaged by spring-pawls *h*, that are fixed on bars B, whereby the roller is held and the frame prevented from collapsing by the strain of the netting. By this construction I produce a strong and durable extensible screen-frame. The side bars can be made of uniform size and equally strong throughout.

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

In extension window-screens, the side bars, B, of the frame, formed of portions *a*, having bevel-edged grooves 1, and portions *b*, formed with beveled tongues 2, whereby a self-sustaining sliding joint is formed, as specified.

JOHN JOSEPH.

Witnesses:

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