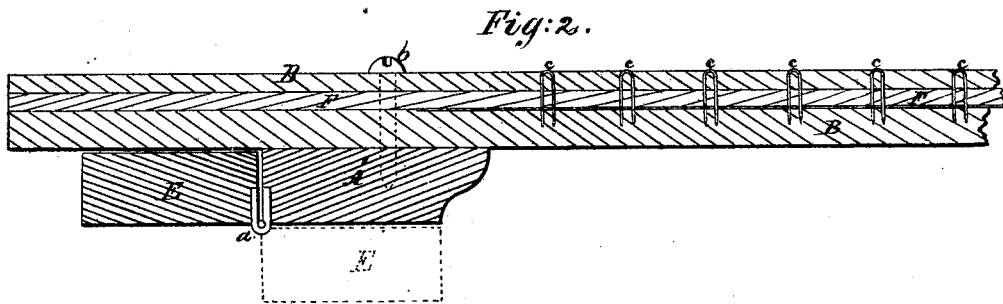
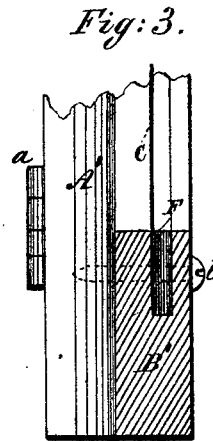
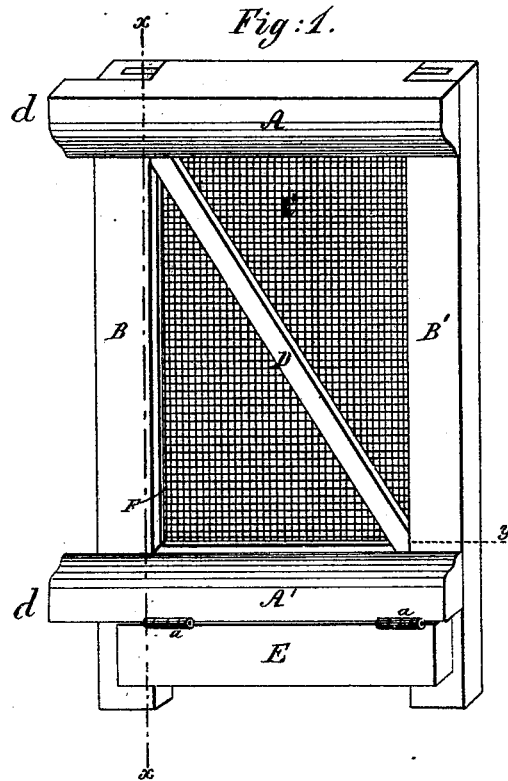


F. N. JOHNSON.
WINDOW-SCREEN.

No. 185,681.

Patented Dec. 26, 1876.



Witnesses
Chas. B. Towles
A. P. Lacey

Inventor
Frank Ford Johnson
 By *M. Barris Atty.*

UNITED STATES PATENT OFFICE

FRANK N. JOHNSON, OF LYONS, IOWA.

IMPROVEMENT IN WINDOW-SCREENS.

Specification forming part of Letters Patent No. 185,681, dated December 26, 1876; application filed July 8, 1876.

To all whom it may concern:

Be it known that I, F. N. JOHNSON, of Lyons, in the county of Clinton and State of Iowa, have invented certain new and useful Improvements in Screen - Frames; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view. Fig. 2 is a vertical section on line *x x* of Fig. 1. Fig. 3 is a transverse sectional view on line *y* of Fig. 1.

My invention relates to the construction of screen-frames, as hereinafter described.

A A' and B B' represent the rails and stiles of the frame, made with grooves to receive the edges of the wire-cloth C, which is fastened in the grooves by the tongues F pressed into the grooves by the side of the wire-cloth. The rails are made thick enough to nearly fill the sash space, and are cut out at the ends the full size of the stiles, so that when framed and fastened together the plain sides of the rails are flush with the sides of the stiles, which, when the screen is in place in the window, are held close to the stop or check rail of the window-casing. E represents a fly, hinged to the lower rail, and covering an opening between the lower ends of the stiles of sufficient size to admit the hand of a person to open or close the window-blinds, without removing the screen.

Screens to be used on the out side of a door are made with projecting ends *d* of the rails, which act in the place of stops on the casing of the door.

The rails and stiles are made with the grooves, and tongues inserted in as great lengths as can be conveniently worked and handled, and the ends of the rail pieces or moldings are cut out to receive the stiles, as shown in the drawings, and the rail-pieces and stile-pieces, with the tongues inserted, are finished with paint, oil, or varnish, ready to be cut into proper lengths, and framed to suit any required size screen.

The wire-cloth, being cut the required size, is inserted in the grooves of the rails and stiles, and fastened by the tongues pressed into the grooves by the side of the cloth, and by the wire staples *c*, which are driven into the back part of the rails and stiles, and through the tongues and wire cloth, as shown in Fig. 2 of the drawings, securely holding the cloth and tongues in the grooves, and the cloth is stretched taut and smooth in pressing the rails and stiles to their places, where they are fastened by screws *b*.

What I claim as new, and desire to secure by Letters Patent, is—

1. A screen frame, having its joints formed by the unnotched stiles B B', fitted and fastened in the notches of the rails A A', the full width and thickness of the stiles, substantially as described and shown.

2. A screen-frame, having projecting ends *d*, to serve as stops, substantially as described.

3. In a screen-frame, the hinged fly E, substantially as and for the purposes described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

FRANK NORD JOHNSON.

Witnesses:

W. W. SANBORN,
L. T. SLOAN.