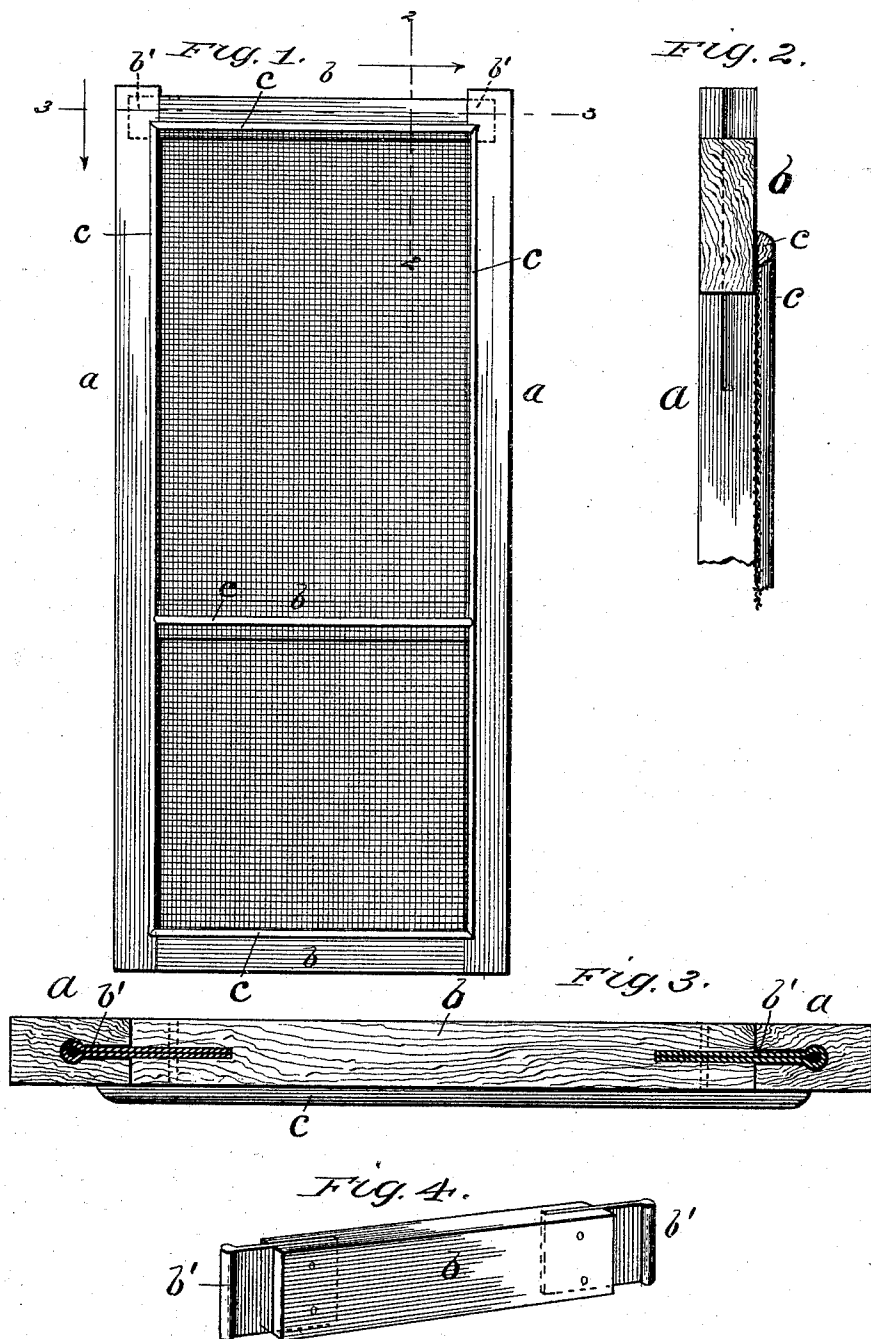


(No Model.)

W. F. LIPP & E. J. PRESTON.
SCREEN DOOR.

No. 477,562.

Patented June 21, 1892.



Witnesses
John M. Walsh.
E. J. Gussens.

Inventors
W. F. Lipp & E. J. Preston
By their Attorneys
Alexander Davis

UNITED STATES PATENT OFFICE.

WILLIAM F. LIPP, OF DAYTON, OHIO, AND ELIJAH J. PRESTON, OF
ALEXANDRIA, KENTUCKY.

SCREEN-DOOR.

SPECIFICATION forming part of Letters Patent No. 477,562, dated June 21, 1892.

Application filed March 5, 1892. Serial No. 423,848. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM F. LIPP, residing at Dayton, in the county of Montgomery and State of Ohio, and ELIJAH J. PRESTON, residing at Alexandria, in the county of Campbell and State of Kentucky, citizens of the United States, have invented certain new and useful Improvements in Screen-Doors, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a front view of our improved door; Fig. 2, a vertical sectional view thereof on the line 2 2; Fig. 3, a horizontal section on the line 3 3 of Fig. 1, and Fig. 4 a detail view of the adjustable end rail.

This invention relates to certain improvements in adjustable screen-doors; and it consists of certain novel features of construction and combination of parts that will fully hereinafter appear, and be particularly pointed out in the claims appended.

In the drawings, *a a* designate the stiles or side bars of the door-frame, and *b b b* the three cross-bars connecting the side bars at their ends and at a suitable point between their ends. The lower and intermediate bars or rails are permanently secured to the side bars by mortising and tenoning or otherwise. The wire-netting is secured on the face of the frame by means of the clamping-strips *c*, suitably fastened to the same, these strips extending along near the inner edges of the side bars and end rails, the upper strip not being secured to the upper rail, but extending across in front of it, so as to obscure and protect the upper edge of the netting. The upper cross-rail *b* is vertically adjustably secured behind the upper edge of the screen between the upper ends of the side rails by means of tenons *b'*, projecting from its ends and fitting and sliding in vertical grooves formed in the adjacent edges of the side rails, the grooves extending down a suitable distance to accommodate doors of various heights. The grooves are closed—that is, they do not extend entirely through the side rails—so that they do not unduly weaken the rails, but leave them solid and un mutilated on their outer surfaces. The tenons have frictional adjustment in the grooves, so that the bar may be

readily adjusted up or down behind the upper edge of the screen under a suitable pressure, and to prevent the side rails spreading the tenons are enlarged or dovetailed at or near their ends, and the grooves in the side rails are similarly enlarged for their reception, as shown. The tenons may be formed on the ends of the bar or they may be of metal and secured in the ends, as shown, the latter being preferred, as it enables the tenons and grooves to be made narrower.

This improved adjustable door is manufactured and sold in the condition above described—that is, it is put on the market “ready made,” the lower and intermediate rails being rigidly secured to the side rails and the upper rail frictionally held in the grooves behind the upper screen-securing strip, the screen being also permanently secured to the rails. To fit and hang the door, the purchaser simply adjusts the upper rail along in the grooves to the proper height and then saws off the projecting ends of the side rails flush with the upper edge of the cross-rail. If necessary, the edges of the side rails may be sawed or dressed off, these rails being made of a sufficient width for this purpose. When the upper rail is properly adjusted, it may be secured in place or prevented from dropping, if necessary, by small nails or other means, and the upper edge of the screen may be clamped by securing the upper clamping-strip to it.

Instead of making the upper rail adjustable, as shown, the lower one may be made adjustable and the upper one secured rigidly, the same purpose being accomplished in either case. It will be observed that by thus completely constructing the door before putting it upon the market purchasers are not required, as in that class of doors known as “knockdown” doors, to assemble and adjust and secure the parts of the frame together and then fit and secure the screen to the frame, this being all done by the manufacturer.

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. An adjustable screen-door consisting of the vertical side rails *a a* and the cross-rails *b b b*, one of the end cross-rails being pro-

vided with oppositely-projecting enlarged
tenons *b'*, working in closed vertical grooves
formed in the inner edges of said side rails,
said tenons having frictional adjustment
5 therein, and the other cross-rails being per-
manently secured to the side rails, a wire-net-
ting secured to the inner edges of frame-bar
by strips *c*, one of these strips extending
across in front of the adjustable cross-rail, so
10 as to protect the unsecured edge of the net-
ting, substantially as described.

2. A ready-made adjustable screen-door
consisting of the side bars *a a* and the cross-
rails permanently connecting the said side
15 bars, one of the end cross-rails being adjust-
ably secured between the side rails by means
of tenons working in grooves in the inner
edges of the same, a wire-netting permanently
secured to the door-frame by vertical and

transverse strips *c*, one of these strips ex- 20
tending across in front of the adjustable
cross-rail and unsecured edge of the wire-net-
ting, but unconnected with the cross-rail,
whereby the adjustable rail is free to be ad-
justed up and down without disturbing the 25
netting and the rail may be secured after ad-
justment to the screen-strip in front of it,
substantially as described.

In testimony whereof we affix our signatures
in presence of two witnesses.

WILLIAM F. LIPP.
ELIJAH J. PRESTON.

Witnesses as to Wm. Lipp:

CHARLES J. MCKEE,
EDWARD F. LIPP.

Witnesses as to Preston:

W. H. WAGONER,
FRANK S. THATCHER.