

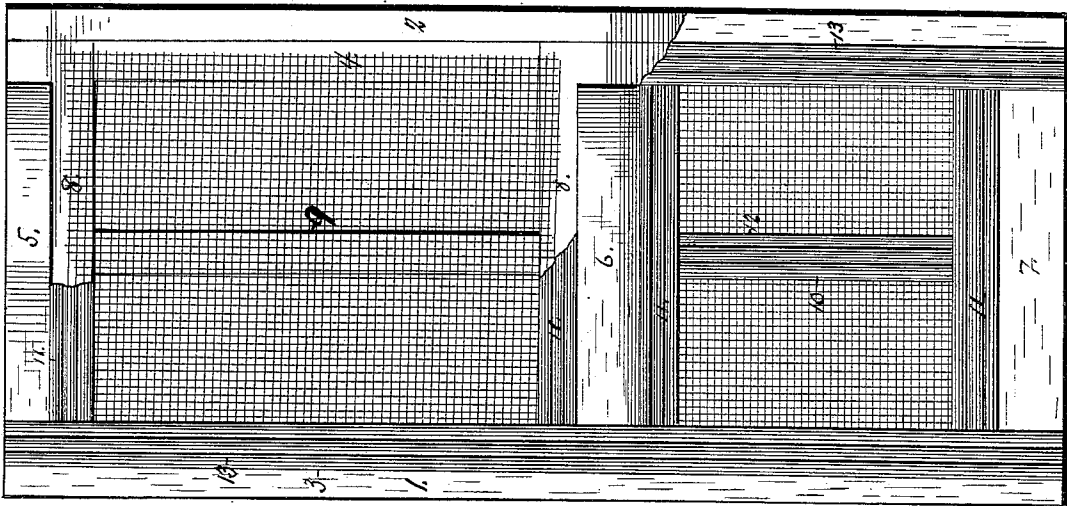
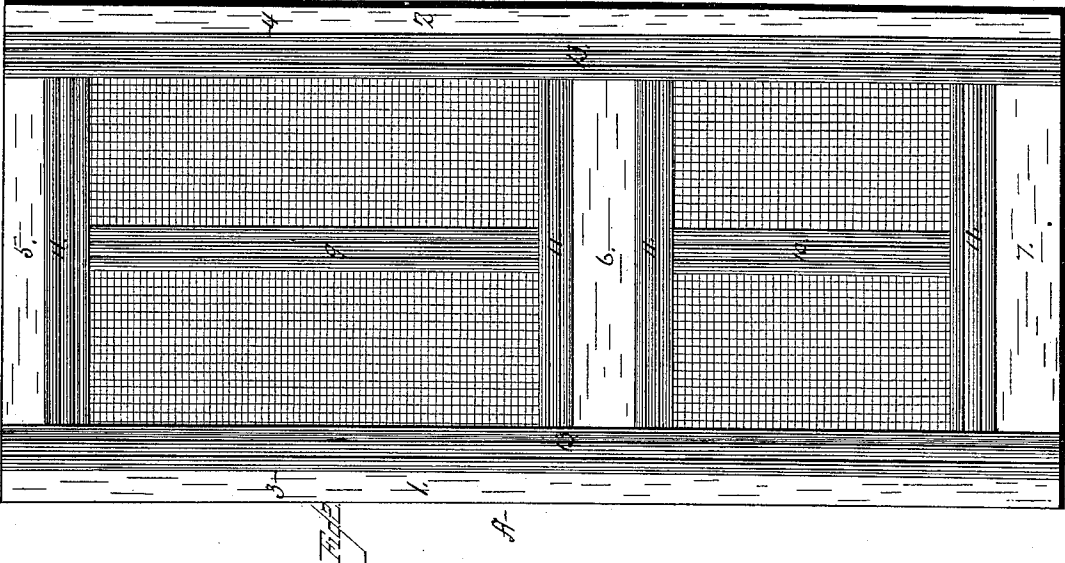
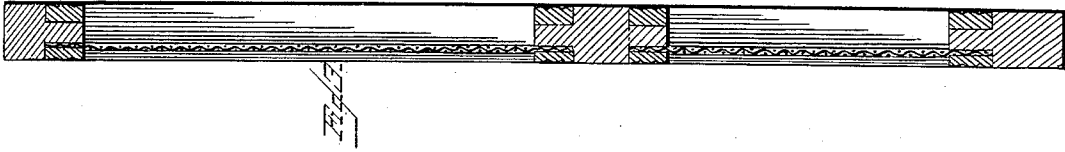
(No Model.)

J. N. LILYGREN.

SCREEN DOOR.

No. 343,667.

Patented June 15, 1886.



WITNESSES
F. L. Orvand
J. Thomson Cross.

INVENTOR
John N. Lilygren.
by A. G. Heyman.
Attorney.

UNITED STATES PATENT OFFICE.

JOHN NELSON LILYGREN, OF MUSCATINE, IOWA.

SCREEN-DOOR.

SPECIFICATION forming part of Letters Patent No. 343,667, dated June 15, 1886.

Application filed March 22, 1886. Serial No. 196,067. (No model.)

To all whom it may concern:

Be it known that I, JOHN NELSON LILYGREN, a citizen of the United States of America, residing at Muscatine, in the county of Muscatine and State of Iowa, have invented a new and useful Frame for Screen-Doors, of which the following is a specification.

My invention has relation to improvements in screen-doors wherein the panel-spaces are supplied with wire fabric or netting to admit the air and exclude flies and other insects; and the objects are, first, to construct a door united by the usual joints of tenons and mortises, and giving additional strength to the structure by clamping-strips let in rabbets in the stiles and extended across the several rails of the door; second, to provide convenient and reliable means for securing the screens in the panels, and, third, to simplify the construction of subsisting doors of the kind named.

My invention therefore consists in the novel construction of the parts and their combination, as will be hereinafter fully described, and as will be clearly and specifically pointed out in the claims made hereto.

In the accompanying drawings, forming a part hereof, Figure 1 is a view in elevation of the frame of the door, showing the side on which the rabbets are formed; and Fig. 2 is a view in elevation of the completed door, on the same side as in Fig. 1, with the screens inserted. Fig. 3 is a vertical section of the door.

The letter A designates the frame of the door, comprising the stiles 1 2, formed with broad rabbets 3 4 in their faces adjacent to the panel-spaces, which rabbets are extended for the whole length of the stiles. These rabbets are made broad to receive substantial clamping-strips, which not only clamp the screens in position, but also serve as braces, and upon which ornamental moldings are formed. Mortises are formed in the stiles at the upper and lower ends and for the middle rail, which receive the tenons of the rails 5, 6, and 7, the tenons being cut down where they cross the rabbets of the stiles level with the floor of the rabbets, as seen in Fig. 1 of the drawings, and the face portions of the rails adjacent to the panels are also rabbeted, as at 8, on which rabbets are seated the clamping-

strips. The mountings 9 10 have their tenons mortised in the respective rails, and are set with the face carrying the screens and clamps on the same plane as the floor of the several rabbets of the frame.

The numerals 11 designate the clamps, which are fitted to the rabbets of the several rails, and 12 the clamps fitted to the mountings, and the numerals 13 designate the clamps and brace-strips which are set on the rabbets of the stiles. These last, it will be perceived, extend the length of the stiles, and of course set across the rails over the tenons, the edges setting square and snug against the shoulders of the rabbets at the point of union of the rails and the stiles, and thus constituting a means for strongly and durably bracing the frame together.

The door is completed by laying the netting cut to shape over the square of the panel-spaces, then setting the clamps of the rails and mountings, and then putting the clamps or brace-strips of the stiles in the rabbets, when all may be secured together by any well-known means. In frames of small area the mountings may be omitted, and the screen thus extended over the single panel-space and held by the clamps of the rails and stiles. The advantages of this construction are that I am enabled to finish both sides of the door alike with more convenience, since the clamps may be finished in the same design as the face of the reverse side of the door, and, as stated, I attain greater convenience of applying the screens, and at the same time brace the door by the extended ends of the clamps in the rabbets on the stiles and across the rails, the strips setting against the shoulders of the rails and along the wall of the rabbets of the stiles.

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

1. The screen-door frame herein described, comprised of the stiles formed with rabbets extended for their entire length in their faces adjacent to the panel-spaces, the rails having rabbets on their faces adjacent to the panel-spaces, the mountings mortised in the rails with their faces on the same plane as the floor of the rabbets, clamping-strips fitted to the rabbets of the rails and to the mountings, and clamping-strips fitted to the rabbets of the

stiles and extended across the tenons of the end rails, conveniently and reliably securing the screens, substantially as described.

2. The screen-door frame herein described, 5
comprised of the stiles formed with rabbets extended for their entire length in their faces adjacent to the panel-spaces, the rails having rabbets on their faces adjacent to the panel-spaces, clamping-strips fitted to the rabbets 10
of the rails, and clamping-strips fitted to the

rabbets of the stiles and extended across the tenons of the end rails, conveniently securing the screens, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two attesting witnesses. 15

JOHN NELSON LILYGREN.

Attest:

THOS. G. TAYLOR,
THOS. BROWN.