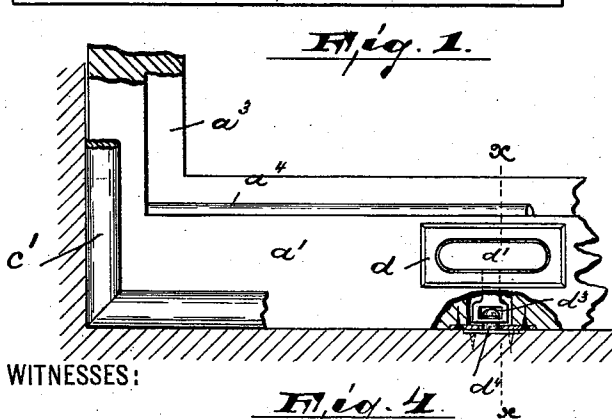
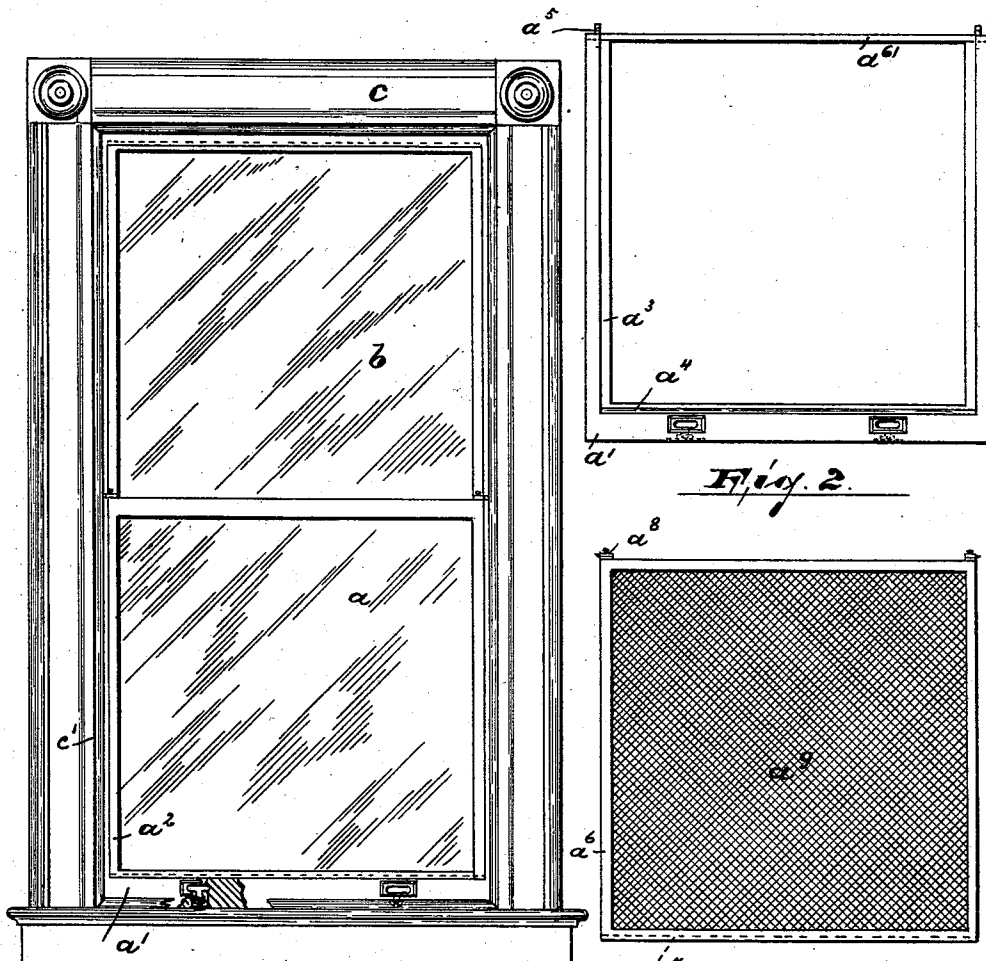


(No Model.)

J. E. ALBERT.
INTERCHANGEABLE WINDOW SASH AND SCREEN.

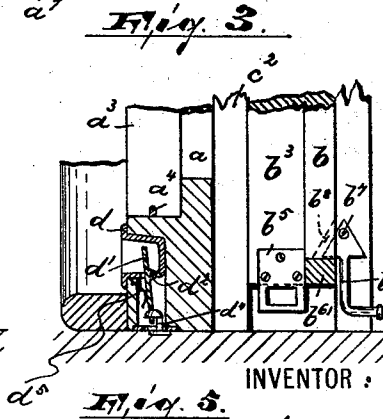
No. 540,619.

Patented June 11, 1895.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN E. ALBERT, OF NEWARK, NEW JERSEY.

INTERCHANGEABLE WINDOW SASH AND SCREEN.

SPECIFICATION forming part of Letters Patent No. 540,619, dated June 11, 1895.

Application filed April 9, 1895. Serial No. 545,061. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. ALBERT, a citizen of the United States, residing in Newark, county of Essex, and State of New Jersey, have
5 invented certain new and useful Improvements in Interchangeable Window Sashes and Screens; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in
10 the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

15 The object of this invention is to provide an interchangeable window sash and screen, of simple, strong and durable construction and which may be easily handled and controlled.

20 The invention consists in the improved interchangeable window sash and screen, in the means for fastening the sash and screen respectively, and in the combination and arrangements of the various parts thereof, substantially as will be hereinafter more fully described and finally embodied in the clauses of the claim.

In the accompanying drawings, Figure 1 is a front elevation of a window provided with my improvements; Fig. 2, a front elevation
30 of the outer lower sash-frame; Fig. 3, a front elevation of the interchangeable screen; Fig. 4, an enlarged detail view of a certain locking mechanism; and Fig. 5, a sectional view
35 on the line *x x* of Fig. 4, the upper sash being lowered and a portion of it illustrated in said view.

In said drawings *a* and *b* represent the lower and upper sash respectively, *c* the window
40 frame and *c'* the beading strips.

The sash *a* consists of the outer sash frame *a'* rabbeted at its sides and lower sections as shown at *a''* in Fig. 2 and provided at its top with a metal strip *a⁶¹* to strengthen said sash.
45 Centrally located throughout the length of the lower rabbet is arranged a tongue *a⁴*, adapted to engage a correspondingly shaped groove *a⁷* arranged in the lower portion of the inner sash *a²* or in the lower portion of the frame
50 *a⁶* (covered with the screen *a⁹*) which screen frame is similarly constructed and of equal dimensions to the inner sash frame *a²*, and can

thus take the place of the latter when desired. Projecting above the upper ends of the side sections of the outer frame *a'* and secured in
55 the rabbets thereof, are perforated plates or staples *a⁵* (of similar construction to the plates *b⁵*, Fig. 5) adapted to be engaged by spring controlled bolts *a⁸* secured to the top of the inner sash *a²* and to the screen frame *a⁶*, as
60 clearly shown in Figs. 1, 2 and 3.

The upper sash *b* is of similar construction to the lower sash but is inverted; the metal strip *b⁶¹* being on the lower side, and the perforated plates *b⁵* secured at the lower ends of
65 the rabbets *b³*. In each of the lower ends of the side sections of said upper frame is arranged a recess *b⁸* adapted to be engaged, when said upper sash is lowered, by a projection of the catch *b⁶* pivoted as at *b⁷* to the out-
70 side window bead, all as clearly shown in Fig. 5.

The upper and lower sashes are separated by the parting bead *c²* in the usual manner.

The lower section of the outer sash frame
75 *a* is provided with a recess in which is arranged the sash lift *d* in the usual manner. Within said sash lift and within a recess in the sash is arranged a plate *d'* fulcrumed as at *d²* and controlled by spring *d⁵*. The lower
80 portion of said plate is provided with a slot or perforation *d³* adapted to engage the headed pin *d⁴* arranged on the window sill.

In operation, when the screen is required—say for the lower sash *a*, the same is lowered,
85 thus closing the window, and by means of the slot in the spring controlled plate *d'* engaging the headed pin *d⁴*, the said lower sash is securely held in position. The bolts *a⁸* are now withdrawn, disengaging *a⁵* and the inner sash
90 *a²* is lifted clear off the tongue *a⁴* and removed from the outer frame. The screen frame *a⁶* is then inserted and locked in position by the bolts *a⁸*.

It will be manifest that the same screen can
95 be used for the upper sash—if so desired. In this case, the upper sash is lowered until the catch *b⁶* engages the recess *b⁸* of the upper outer sash, when the inner sash is removed and replaced by the screen, in the manner
100 above described.

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

1. An interchangeable window sash and screen, consisting of an outer frame rabbeted at its side and bottom sections, a tongue arranged centrally in the rabbet of the lower section, a metal strip connecting the upper ends of the side sections, a series of inner frames covered with glass and screen respectively, each being provided at the under side of its lower section with a longitudinally arranged groove adapted to engage the tongue in the rabbet of the lower section of the outer frame, and means for locking said inner frames to said outer frame, all said parts, substantially as and for the purposes described.
2. An interchangeable window sash and screen consisting of an outer frame rabbeted at its side and bottom sections, a tongue arranged centrally in the rabbet of the lower section, a metal strip connecting the upper ends of the side sections, a series of inner frames covered with glass and screen respectively, each being provided at the under side of its lower section with a longitudinally arranged groove adapted to engage the tongue in the rabbet of the lower section of the outer frame, means for locking said inner frames to

said outer frame, and means for securely fastening said outer frame in its lowermost position, all said parts, substantially as and for the purposes described.

3. In an interchangeable window sash and screen, the combination with the window frame and sill, of an outer sash frame rabbeted at its side and bottom sections, a series of interchangeable inner frames covered with glass and screen respectively and adapted to engage the rabbets of said outer frame, a sash lift in the lower section of the outer frame, said lower section being provided with a recess, a spring controlled slotted plate in said recess and extending into said sash lift, and a headed pin on the window sill and adapted to engage said slotted plate, all said parts, substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of April, 1895.

JOHN E. ALBERT.

Witnesses:

ALFRED GARTNER,
DUNCAN M. ROBERTSON.