

(No Model.)

2 Sheets—Sheet 1.

J. E. SYMES.
ADJUSTABLE SCREEN.

No. 513,468.

Patented Jan. 23, 1894.

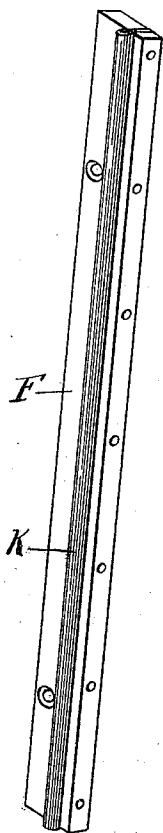


Fig. 2.

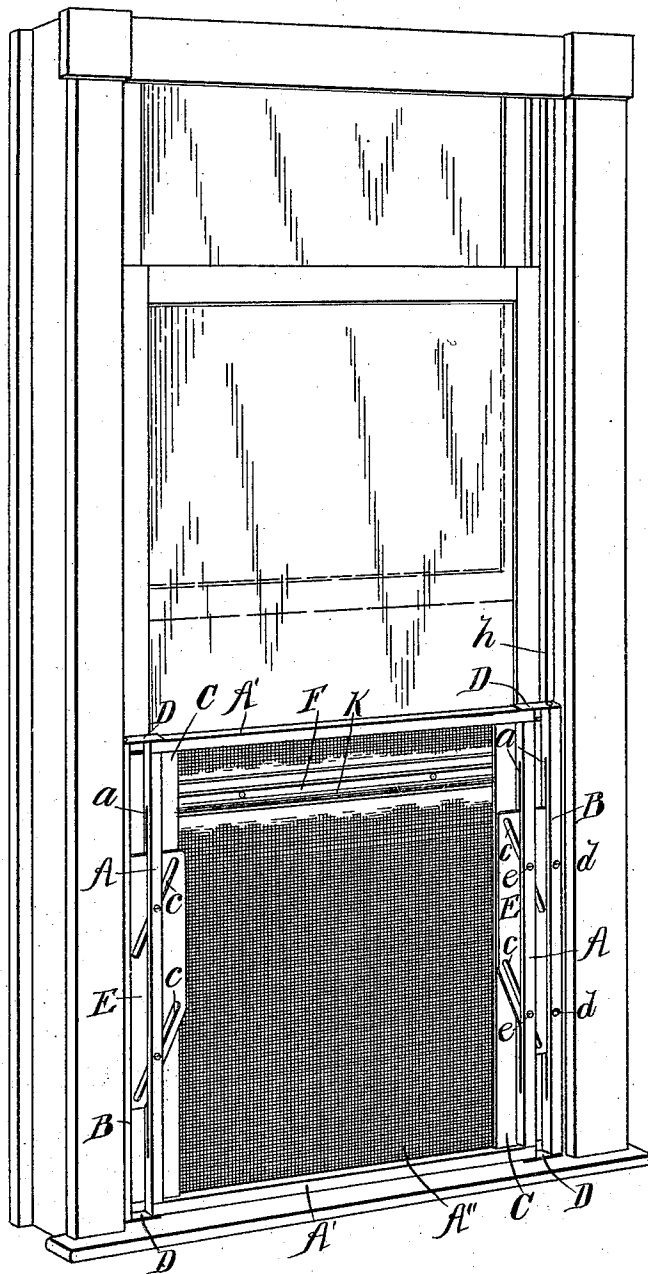


Fig. 1.

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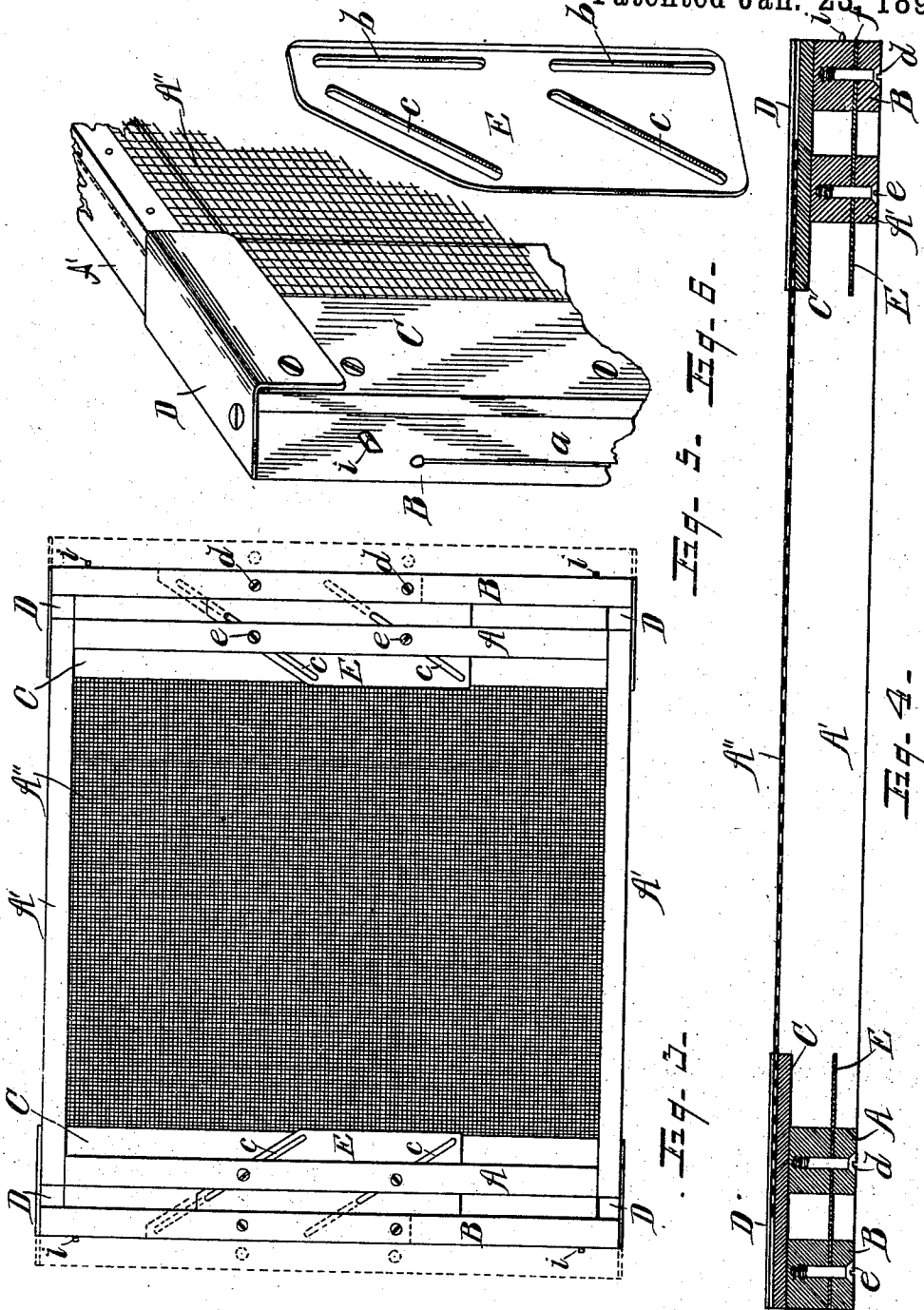
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UNITED STATES PATENT OFFICE.

JAMES E. SYMES, OF BANCROFT, MICHIGAN.

ADJUSTABLE SCREEN.

SPECIFICATION forming part of Letters Patent No. 513,468, dated January 23, 1894.

Application filed April 13, 1893. Serial No. 470,174. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. SYMES, a citizen of the United States, residing at Bancroft, in the county of Shiawassee, State of Michigan, have invented certain new and useful Improvements in Adjustable Screens; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in window screens, and it consists in a certain construction and arrangement of parts as hereinafter fully set forth and described particularly in the claims.

The object of the invention is to provide a window screen that may be readily adjusted to fit the casings of windows of varying sizes, in such manner as to effectually exclude the dust and insects without interfering with the raising or lowering of either sash, and in which the construction is such that the screen when adjusted is securely held in position within the casing without the aid of additional fastenings, enabling the same to be removed or replaced at will.

To these ends my invention consists in the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a window equipped with my improved screen. Fig. 2 is a perspective view of a rail similar in construction to a weather strip, which may be attached to the bottom rail of the sash so as to bear against the screen and exclude insects from entering between the screen and movable sash. Fig. 3 is a side elevation of the screen and frame. Fig. 4 is an enlarged horizontal section through the same. Fig. 5 is an enlarged perspective of one corner of the frame. Fig. 6 is a perspective of one of the key-wedges employed to adjust the frame.

Referring to the letters of reference, A and A' indicate the bars of the rigid frame, to the bars A' of which the screen A'' is secured at the top and bottom, the sides of the screen being free. The adjustable portion of the frame consists of the side bars B, having the

lateral wings C secured to the outer edge thereof and which project inward and are adapted to slide under the free side edges of the screen, see Fig. 5; said adjustable parts having the angle corner plates D attached thereto which extend onto the bars A' of the fixed frame and close the opening above the top of the wings C, which slide in a rabbet in the inner edge of the bars A'. The movable portion of the frame is coupled to the fixed portion by means of the movable keys E, which are mounted in vertical slots *a* in the bars A, B, of the fixed and movable portions of the frame, and are adapted to have vertical and transverse movement therein. Said keys are provided in their outer edges with the vertical slots *b*, and running obliquely inward from their inner edge are the slots *c* as clearly shown in Fig. 6. As stated, these keys are located in the slots *a* in the bars A, B, and extend between said bars, being secured in the bars B by means of the screws *d* which pass through the vertical slots *b* in said keys and in the bars A by means of the screws *e* which pass through the oblique slots *c* therein, by which construction a vertical movement of said keys will extend or retract the movable portion of the frame, as shown by stipple and full lines in Fig. 3, so as to adjust the frame to any size of window and when so adjusted the parts are securely locked by said keys, as no movement of said movable parts can occur except by the adjustment of the keys themselves as will be readily understood, the inclined slots in said keys engaging the pins or screws *e* serving to cause them to move horizontally as they are raised and lowered. These keys are made preferably of metal plate and the outer edge thereof is permitted to project through the edge of the bar B, and is sharpened as shown at *f* in Fig. 4, forming a blade that enters the jamb of the window and prevents the rattling of the screen frame, and as an additional guard against rattling the bars B at each end thereof are provided with sharpened pins *i*, that are also adapted to enter the jamb of the window when the movable portion of the frame is extended.

This improved screen frame may be located either at the top or bottom of the window, or upon the inside or outside of the sash as de-

sired. When located upon the inside of the sash, as shown in Fig. 1, the wings are extended against the frame of the window inside of the stops *h*, which leaves a space between the screen frame and sash the width of said stops. To close this opening, the strip *F* is employed, which is provided with the rubber roll or strip *k*, projecting from one face thereof, and which is secured to the bottom rail of the sash with its ends abutting against said stops *h*, and the rubber strip bearing against the face of the screen, so that said rubber will slide on said screen as the sash is raised or lowered, thus effectually closing said opening. When the screen is located on the outside, this strip is employed in the same manner. The use of said strip, however, may be obviated if desired, by placing the screen frame close against the sash. This manner of setting the screen permits the sash to be raised and lowered at will without removing the screen from the window, but said screen may be located under said sash, in the ordinary manner if found desirable.

25 Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a screen, the combination of the rigid frame supporting the screen, the side wings adapted to slide under the sides of said screen, the key plates movably attached to said wings and to said rigid frame, and adapted to extend and retract said wings by the vertical movement thereof.

2. In a screen, the combination of the rigid

frame and the movable wings, the key plates having the vertical and oblique slots therein movably attached to said frame and wings by pins passing through said slots, whereby, by the movement of said keys, said wings may be extended or retracted.

3. In a screen, the combination of the rigid frame having the vertical slotted bars, the movable wings having like bars, the key plates having oblique and vertical slots therein located in the slots in said bars, the pins passing through said bars and the slots in said keys to couple said wings to said rigid frame, in such manner that the movement of said keys will extend or retract said wings and lock them when adjusted.

4. In a screen, the combination of the rigid frame having the vertical slotted bars, the movable wings having like bars, the key plates having oblique and vertical slots therein located in the slots in said bars, the edge of said plates extending through the slots in the bars of the wings, and adapted to engage the window frame, the pins passing through said bars and the slots in said keys to couple said wings to said rigid frame in such manner that the movement of said keys will extend or retract said wings and lock them when adjusted.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES E. SYMES.

Witnesses:

L. C. SHELLEY,
ER. M. SHELLEY.