

(No Model.)

2 Sheets—Sheet 1.

J. LAURIE.
WINDOW SCREEN ATTACHMENT.

No. 496,364.

Patented Apr. 25, 1893.

Fig. 1.

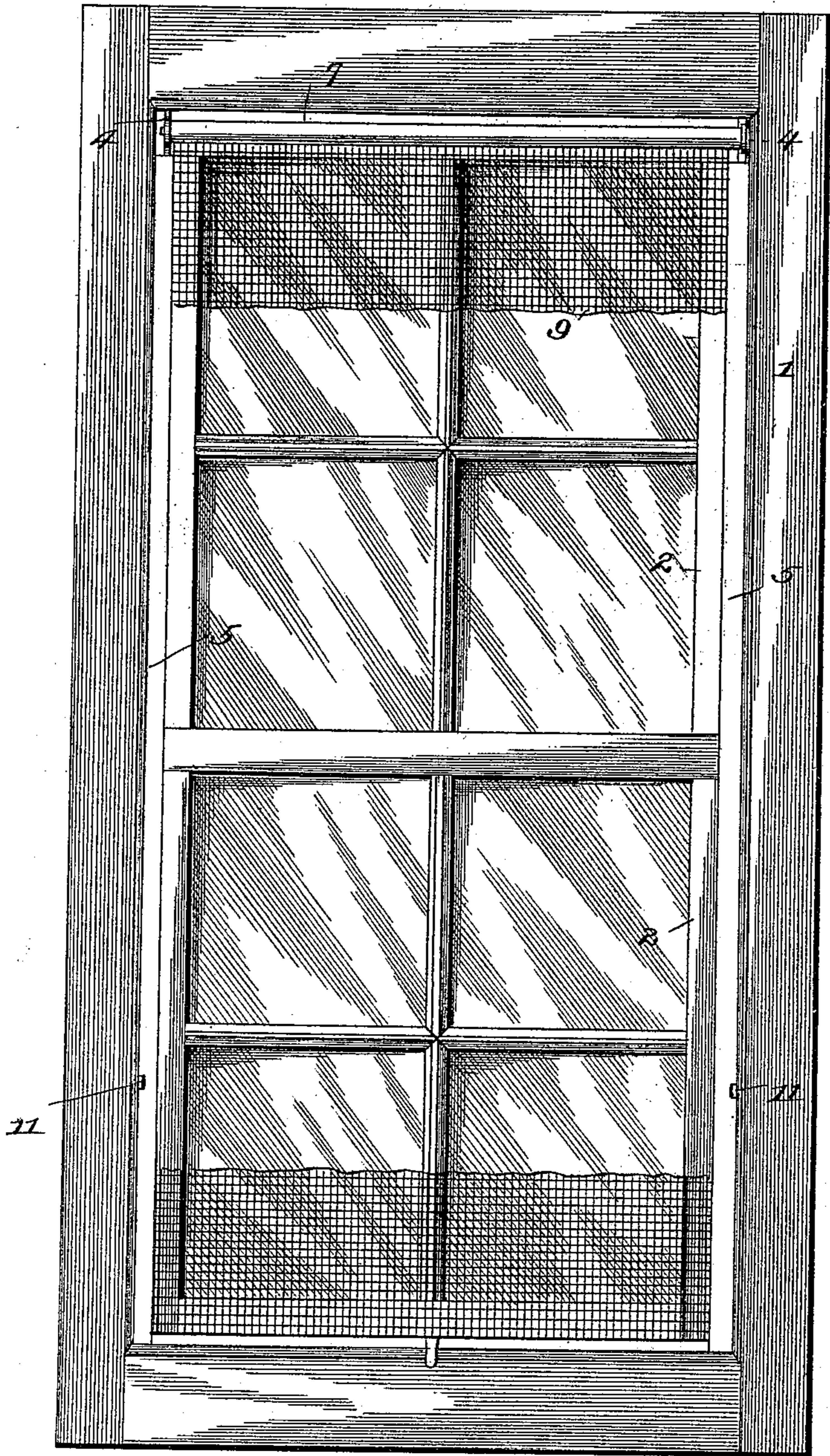
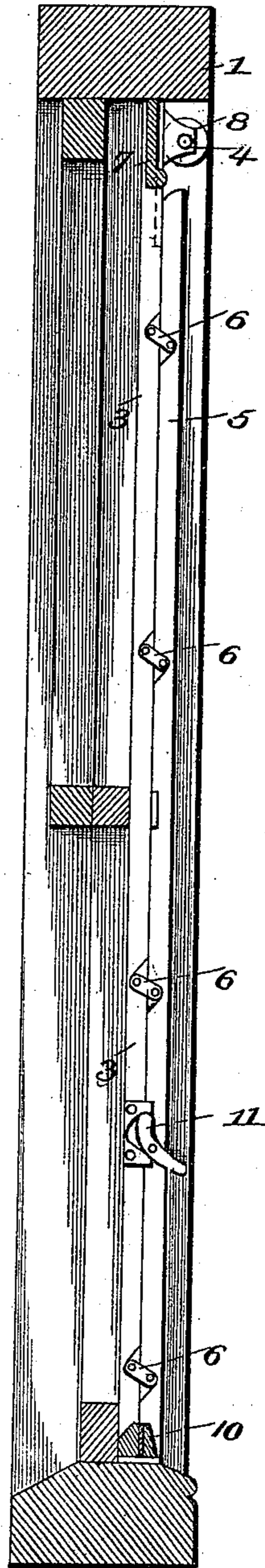


Fig. 2.



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Fig. 3.

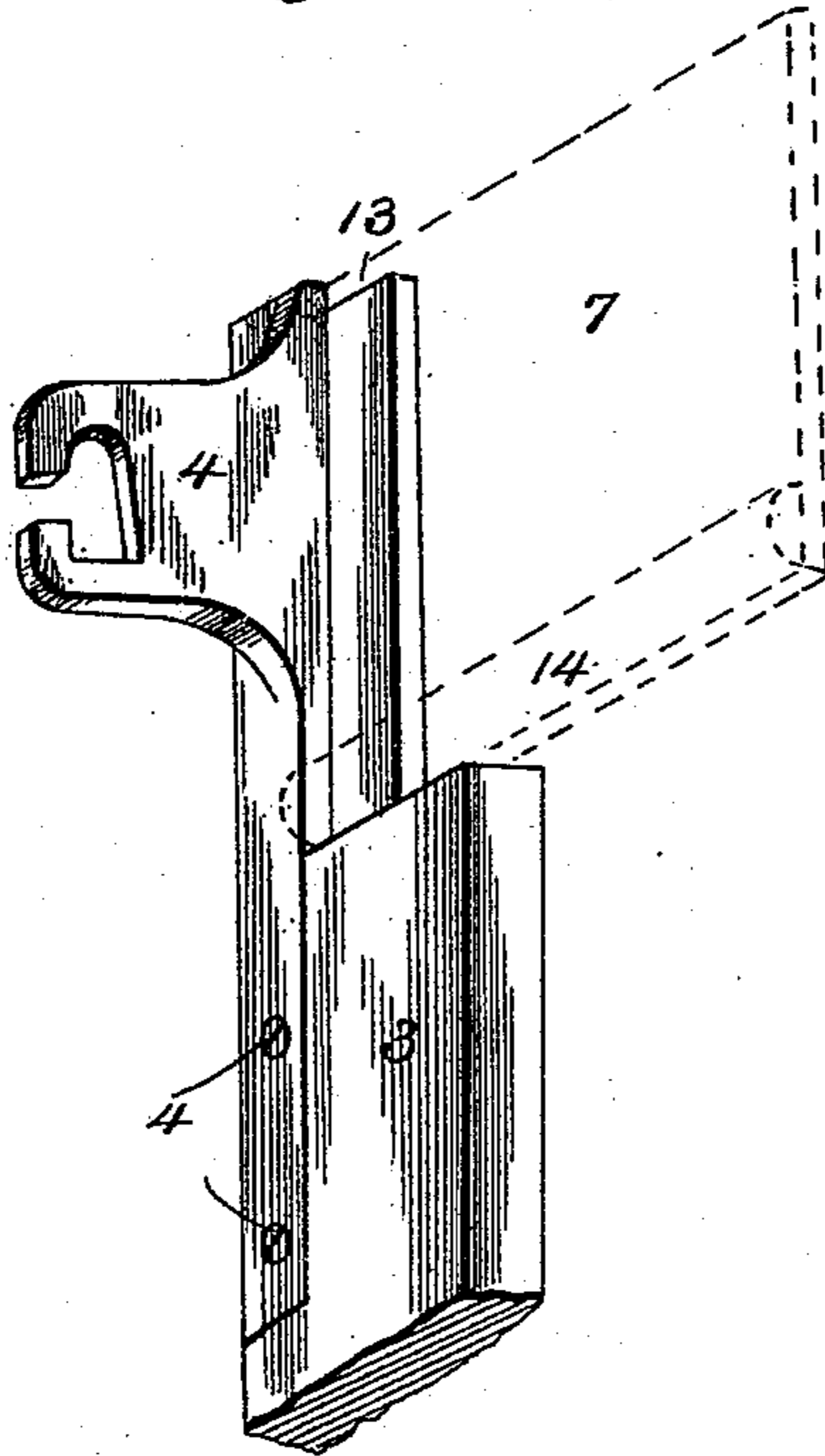


Fig. 4.

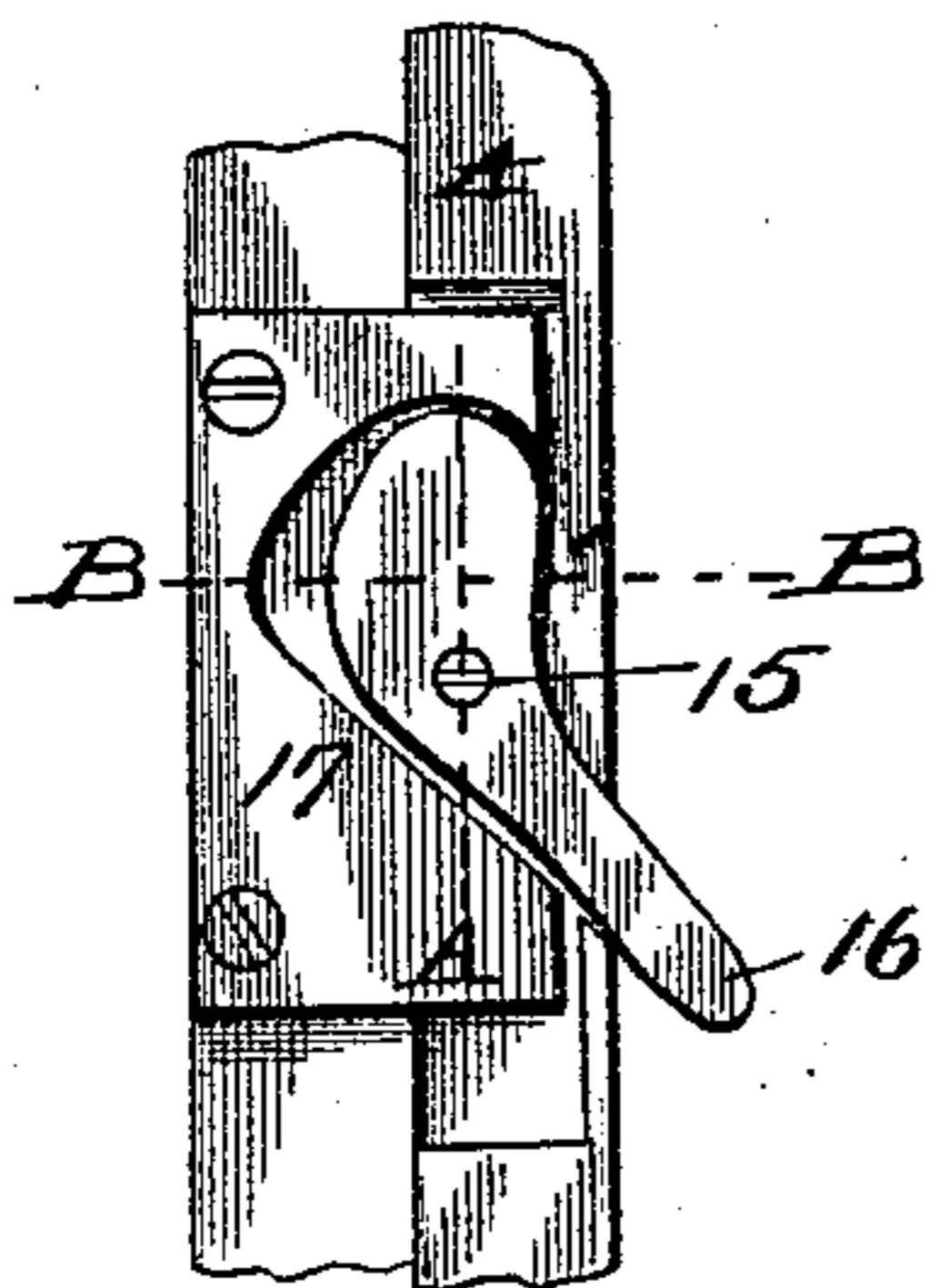


Fig. 5.

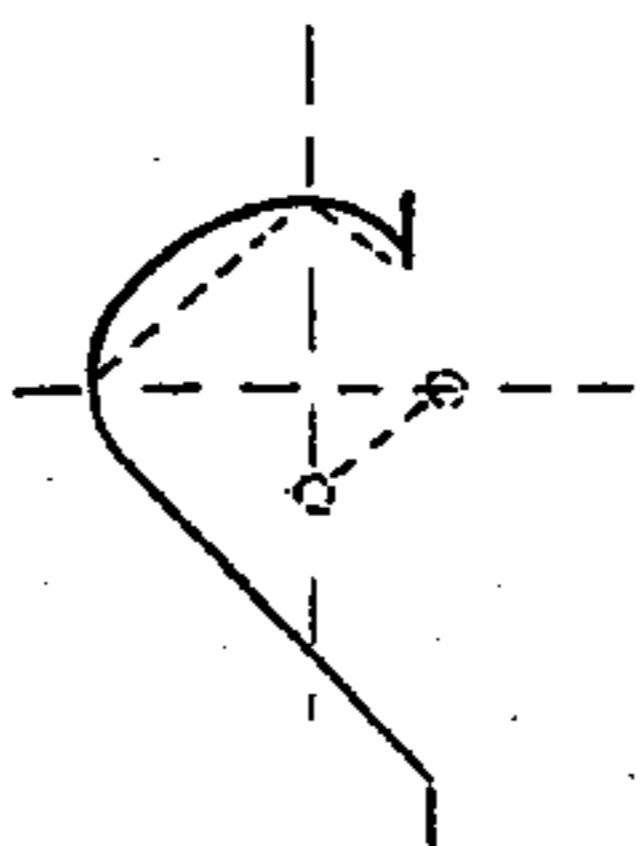
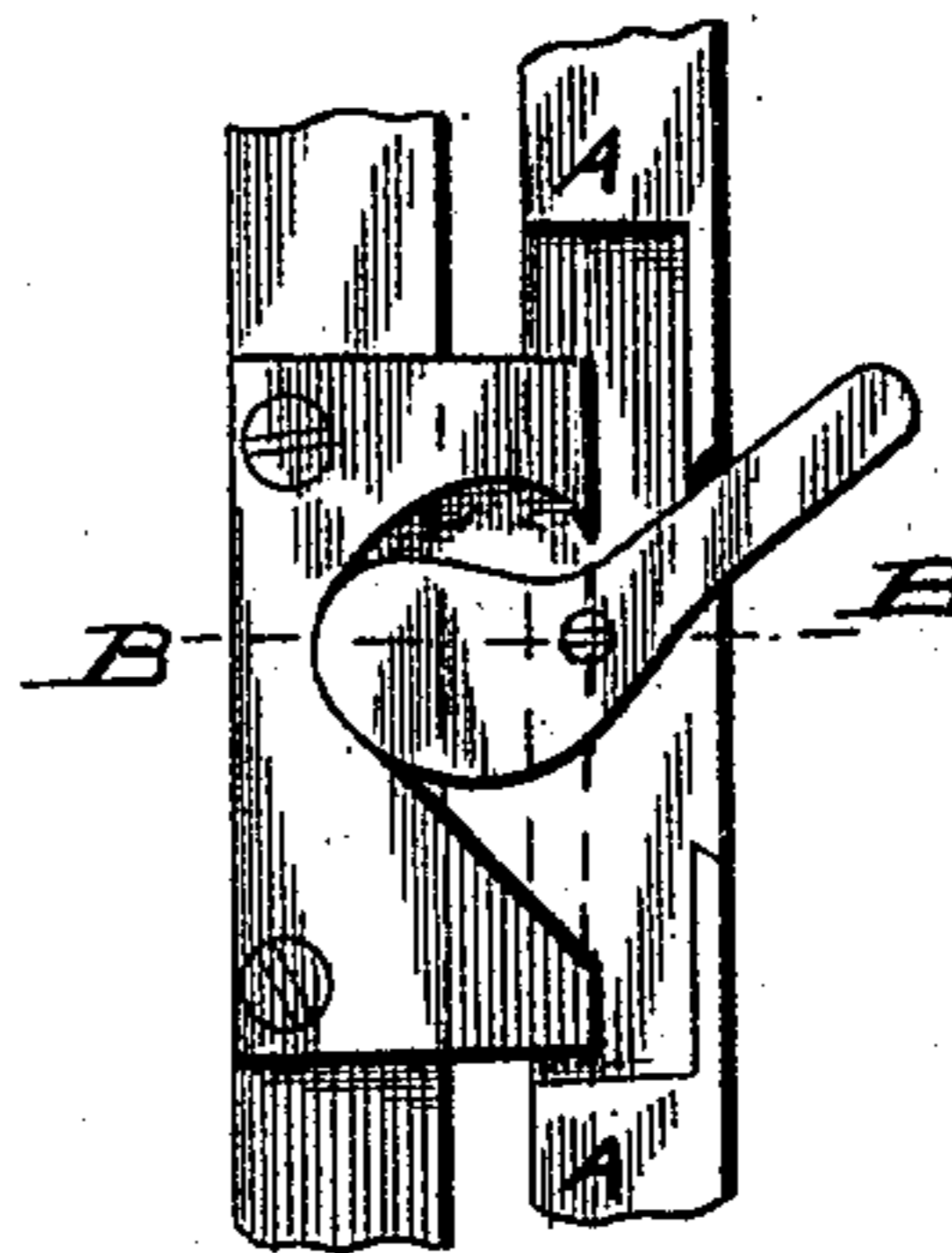


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN LAURIE, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-FOURTH TO
GEORGE YAKLE, OF SAME PLACE.

WINDOW-SCREEN ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 496,364, dated April 25, 1893.

Application filed May 7, 1892. Serial No. 432,221. (No model.)

To all whom it may concern:

Be it known that I, JOHN LAURIE, a citizen of the United States, and a resident of Baltimore city and State of Maryland, have invented certain new and useful Improvements in Window-Screen Attachments, of which the following is a specification.

My invention consists of a device for attaching a screen or curtain to a window or door or to the sides of a carriage, and has for its object to furnish a screen or curtain which may be raised or lowered at will, and when lowered may be clamped firmly on both sides throughout its whole length, so as to hold it firmly in place, as securely as if nailed to a solid frame all round.

In the drawings Figure 1, is an elevation of a window showing my device in place. Fig. 2, is a section of same. Fig. 3, is a perspective view of the upper end of the side bar of my device showing roller bracket and method of attaching the upper cross-bar of the frame. Figs. 4, 5 and 6 are detail views of locking device.

In the drawings, 1 is the window frame; 2 the sash.

3, 3, are the side bars of my frame which are securely attached to the sides of the window frame, and on the upper ends of which are mounted the curtain brackets, 4, 4. These brackets as shown in the drawings are adapted for a spring roller, but any other kind of roller may be employed which may be found suitable.

5, 5 are the clamp bars, they are strips of wood of about the same length and size as the strips 3, 3, and to which they are secured by means of the links 6, 6, so that as they move they will always remain parallel to the strips 3, 3, throughout their length, by this means the slot between these strips is always kept the same width and an equal pressure is maintained upon the edges of the screen or curtain.

7 is a light board preferably of the shape shown in Fig. 3, the ends of which are inserted and held in the slots 13, 13 of the brackets 4, 4. These castings are made as shown in the drawings Fig. 3, for the purpose of facilitating the insertion and securing of the

board 7 in the position shown, but any other location for the board, or method of securing it which will accomplish the same object may be employed. The purpose of this board is to close the space between the top of the roller and the under side of the top of the window frame. It will be observed that the top of the slot 13 is open, thus permitting a board of any width to be inserted, to suit the height of the space to be filled. The screen will close all of the space below the roller, but if the space above the roller be left unprovided for, flies or mosquitos would have an open entrance to the room above the roller. 14 is a bead on the lower end of the board 7, which protrudes forward and presses against the outside of the screen and completely closes the opening above the roller.

8 is the roller on which the screen or curtain is wound. I prefer a spring roller of the kind which will coil up the curtain by the force of the retractile spring contained within it.

9 is the curtain or screen. If the device is used for an ordinary blind any suitable material may be employed for this purpose. If for fly screens a netting made of strong hemp or jute for the purpose is admirably adapted. If for carriage curtains, leather or leatheret, a canvas coated with a waterproof paint, may be used. It will be readily understood that this device may be applied to carriages with slight modification.

11 is the cam clamp by which the bars 5, 5, are moved and locked. When the clamp bar 5 is either raised or lowered so as to clamp the screen it is important that it should be locked in the position in which it is placed. If opened in order that the slot may be free and open for the curtain or screen to move, and if closed that the screen or curtain may be held firmly under all circumstances of wind and weather.

12 is a cam pivoted at 15 and having a lever or handle 16 projecting beyond the pivot and by which the cam is operated. The cam is elliptical in shape with the pivot located at about the focus farthest from the extremity of the cam.

17 is the cam seat constructed upon the dia-

gram shown in dotted lines in Fig. 4 from which it will be seen that the line A, A, which is parallel to the post 3, passes through one of the angles or points of rest in the cam and
 5 that the line B, B, which is perpendicular to the post 3, 3, passes through another of the angles or points of rest in the seat. It will be observed that when the line B, B, passes through both of the foci of the ellipse that
 10 the strips 3 and 5 will separate from one another and the cam will be at rest in the angle below it. When now it is desired to close the clamp the lever 16 is moved down and as the extremity of the cam 12, bears upon the
 15 seat 17, the pivot will be moved down also until the two foci of the ellipse are in a perpendicular line, or one parallel to the post 3, the extremity of the cam will then rest in the second angle of the seat and when in that position
 20 will hold the strip 5 firmly clamped and locked upon the strip 3.

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

25 1. In a window screen, the combination of an adjustable frame consisting of two side bars provided on their upper ends with bearings for a roller, upon which is coiled a flexible screen, a board 7 located behind the roller
 30 and closing the space between the top of the window frame and the top of the roller, a pair of clamps secured to the side bars and between which the sides of the screen pass and rest, and means for pressing the clamp upon the
 35 edges of the screen and side bars, substantially as described.

2. In a window screen, the combination of the sides of a frame with strips of wood or other suitable material resting upon them, a

screen or curtain suitably mounted and the 40 edges of which rest between the strips and the sides of the frame, and a clamping device consisting of a cam pivoted to the strip and bearing upon a curved seat secured to the edge of the frame, the cam and seat being so constructed that when the cam is in one position
 45 and the clamp strip raised from the frame, a line drawn through the pivot of the cam and its point of contact with its seat will be at right angles to the frame, while when the cam 50 is in the opposite position and bearing upon the upper side of the seat so as to clamp the strip firmly upon the edge of the frame, a line drawn through the pivot of the cam and its point of contact with its seat will be parallel 55 to the edge of the frame.

3. In a window screen, the combination of a roller suitably mounted in bearings and attached to a frame and to which is secured a flexible screen or curtain, a pair of clamps located one at either side of the window and each consisting of a pair of strips of wood or other suitable material one secured to the window frame and the other secured to the first
 60 by a series of links, so arranged that as the 65 second strip is moved up and down, it will move in a direction parallel to the first strip throughout its length and approach or be withdrawn from the first strip, while constantly maintaining its parallelism to it at all times, 70 and means for locking the second strip upon the first one.

Signed at Baltimore city and State of Maryland this 11th day of March, A. D. 1892.

JOHN LAURIE.

Witnesses:

JNO. T. MADDUX,
 F. HARRY DEAN.