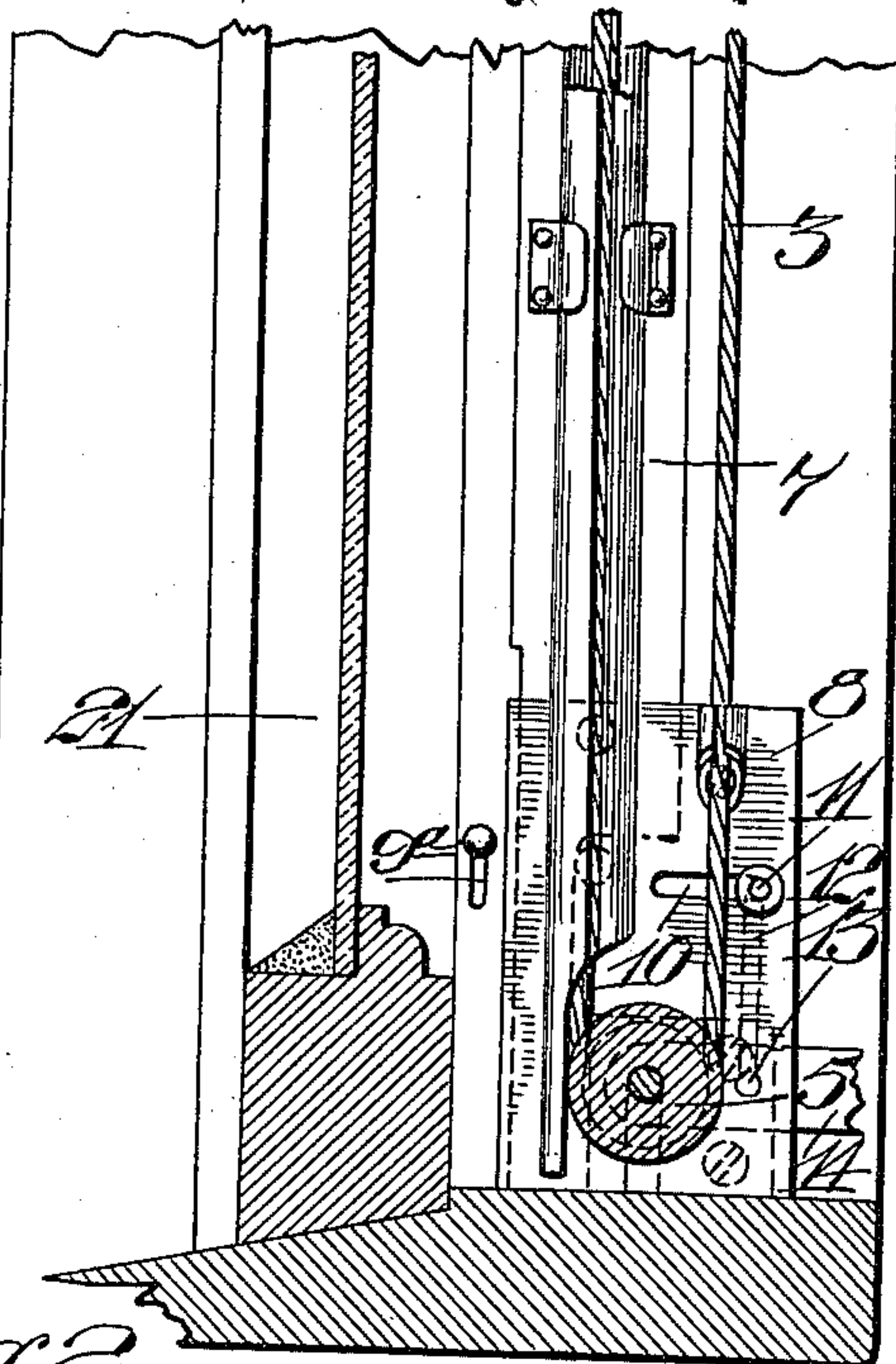
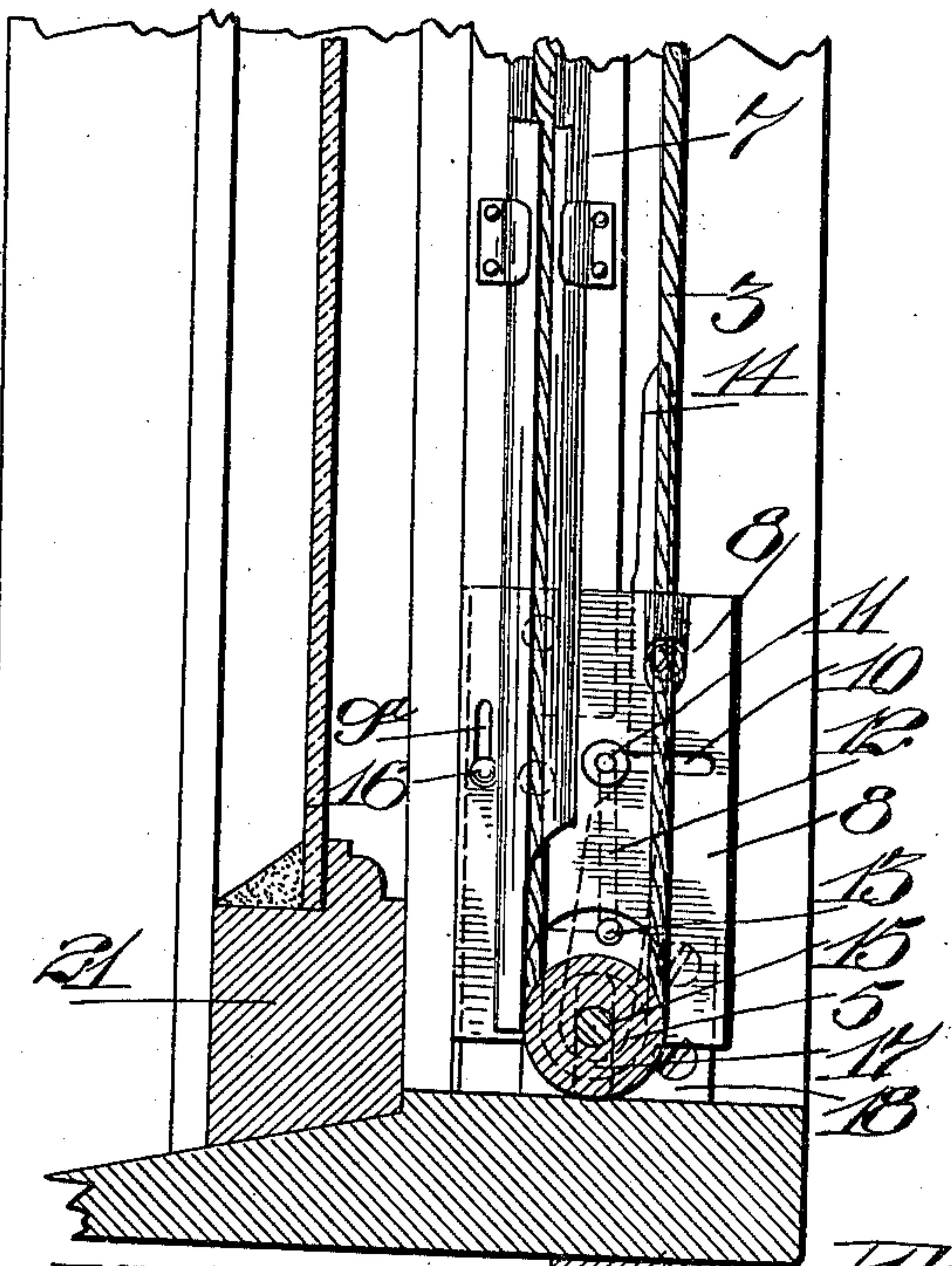
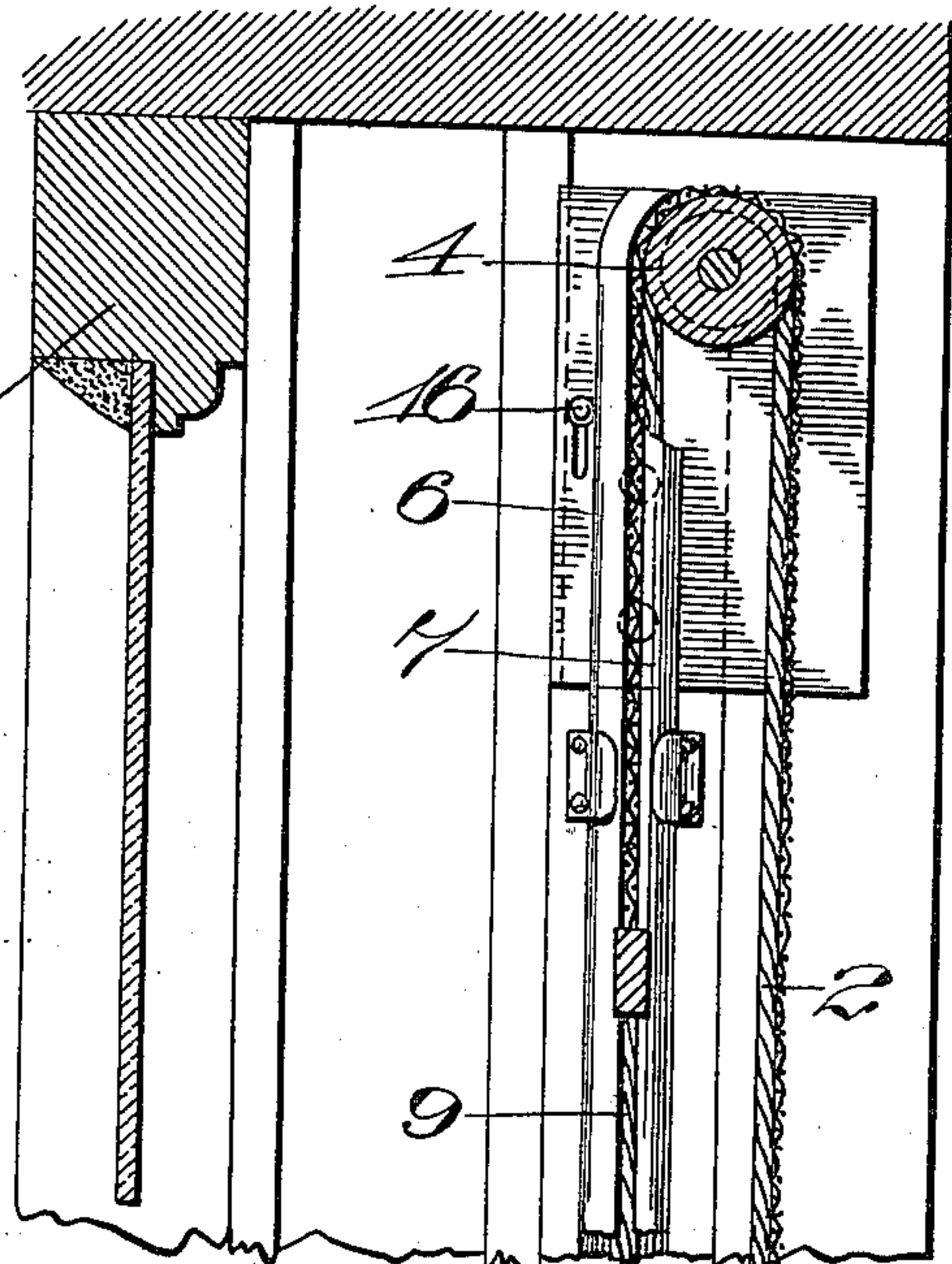
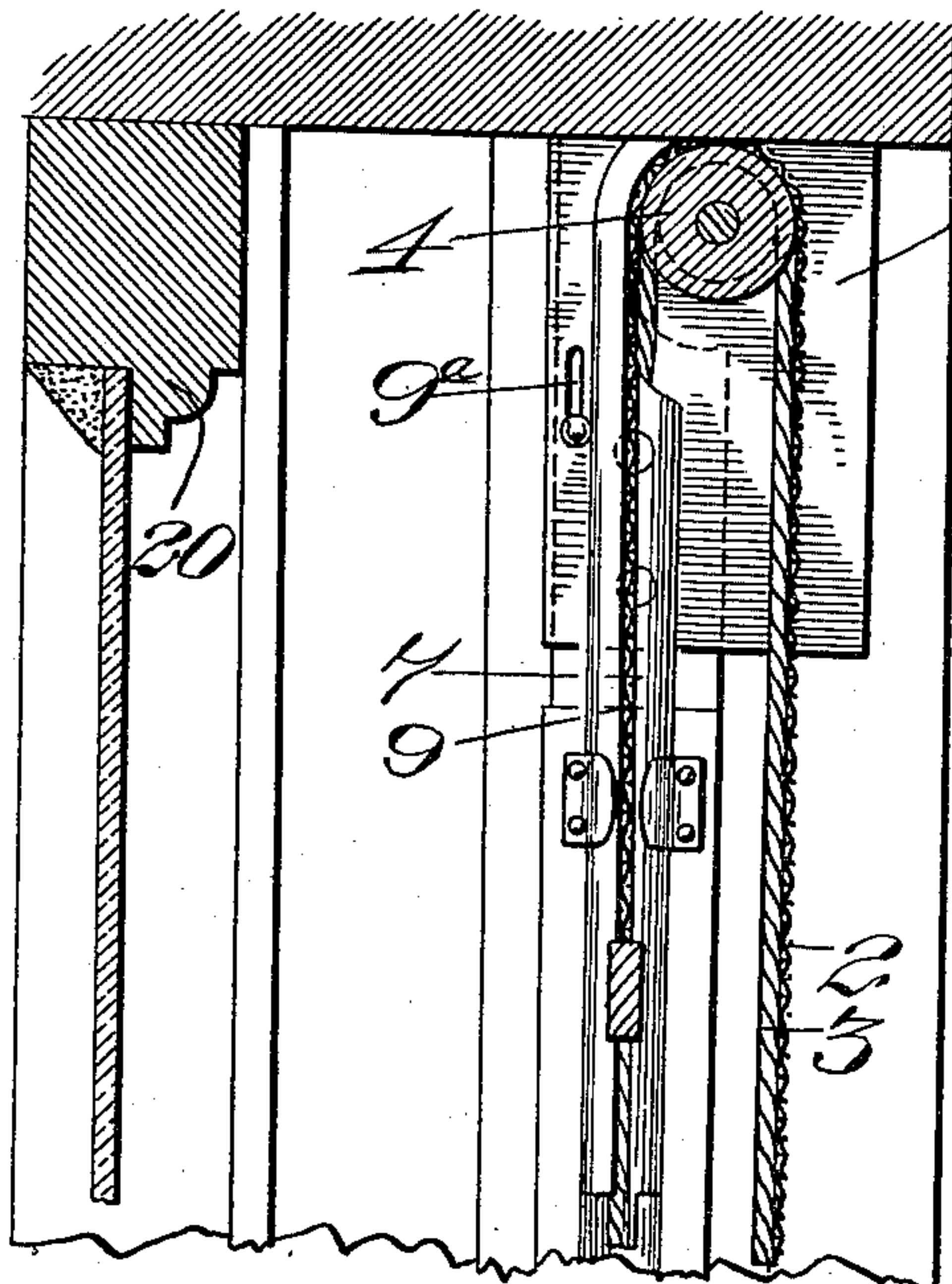


997,849.

W. A. RAY.
ADJUSTABLE SCREEN AND CURTAIN ATTACHMENT.
APPLICATION FILED AUG. 10, 1910.

Patented July 11, 1911.

2 SHEETS-SHEET 1.



Witnesses
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Fig. 2
Fig. 1.

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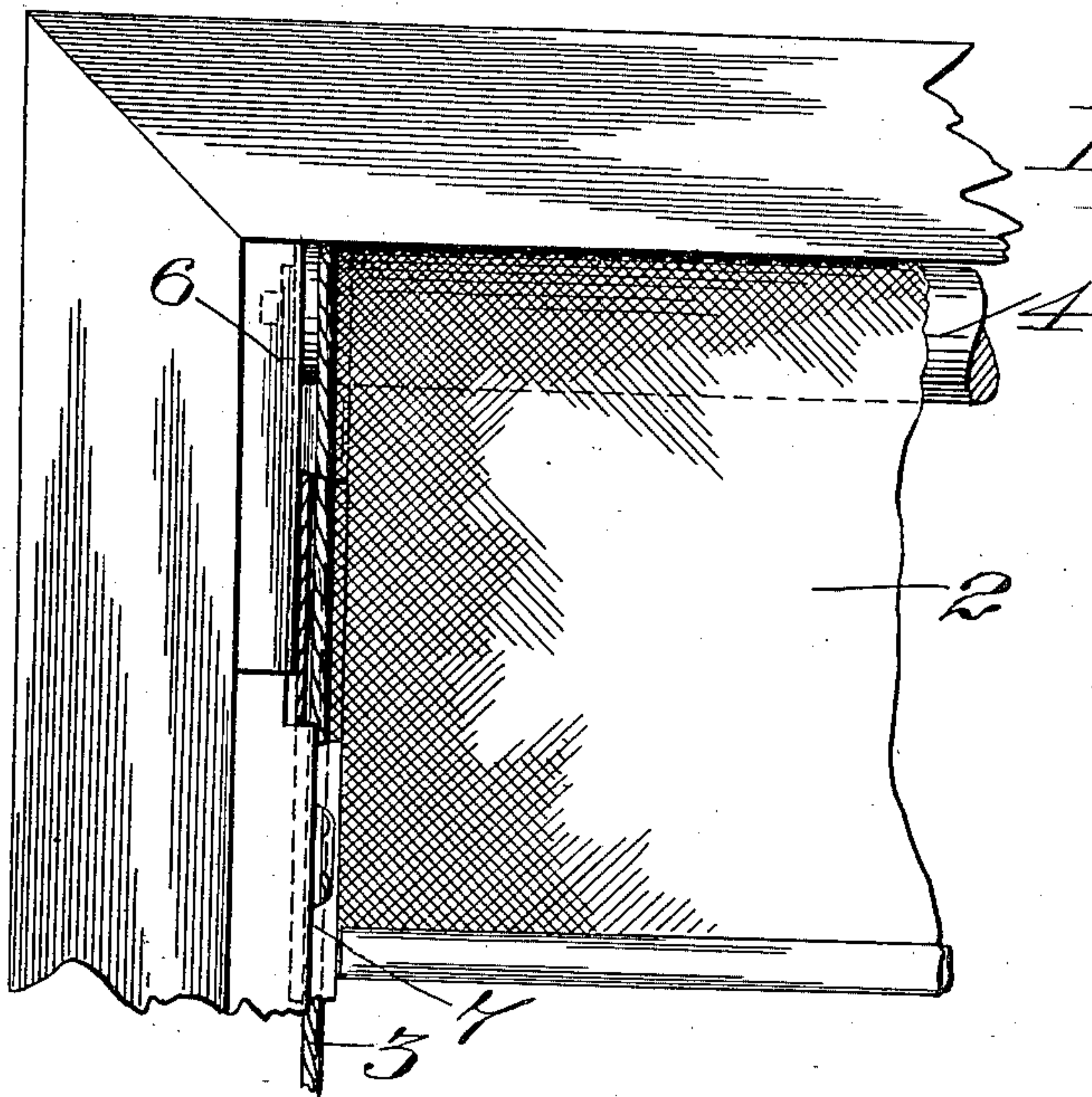


Fig. 3.

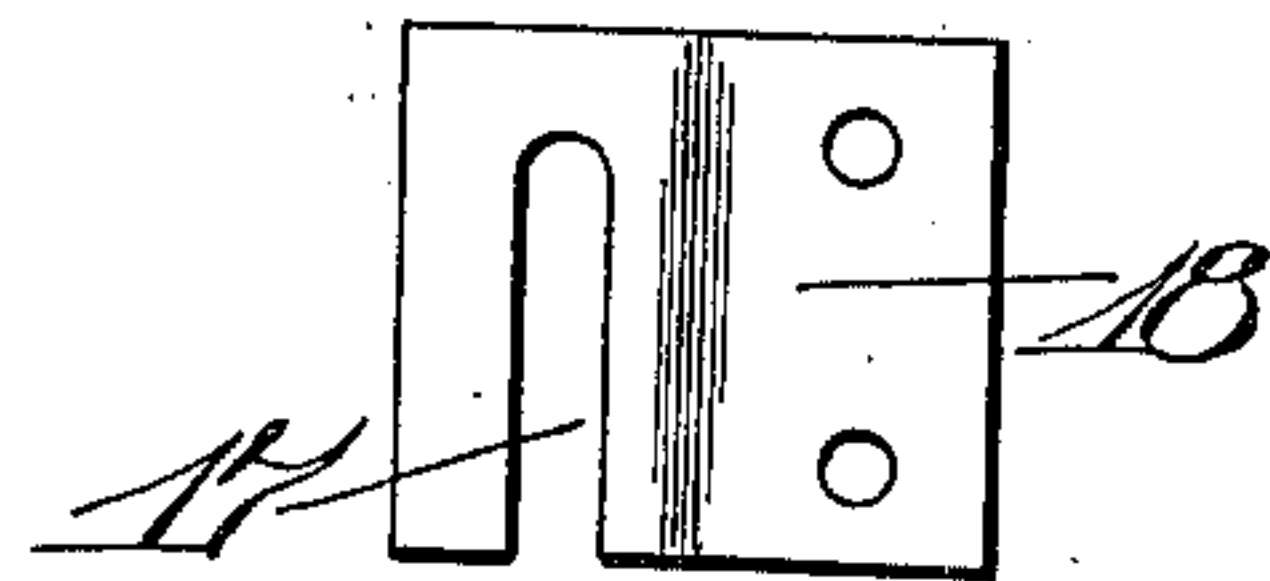


Fig. 5.

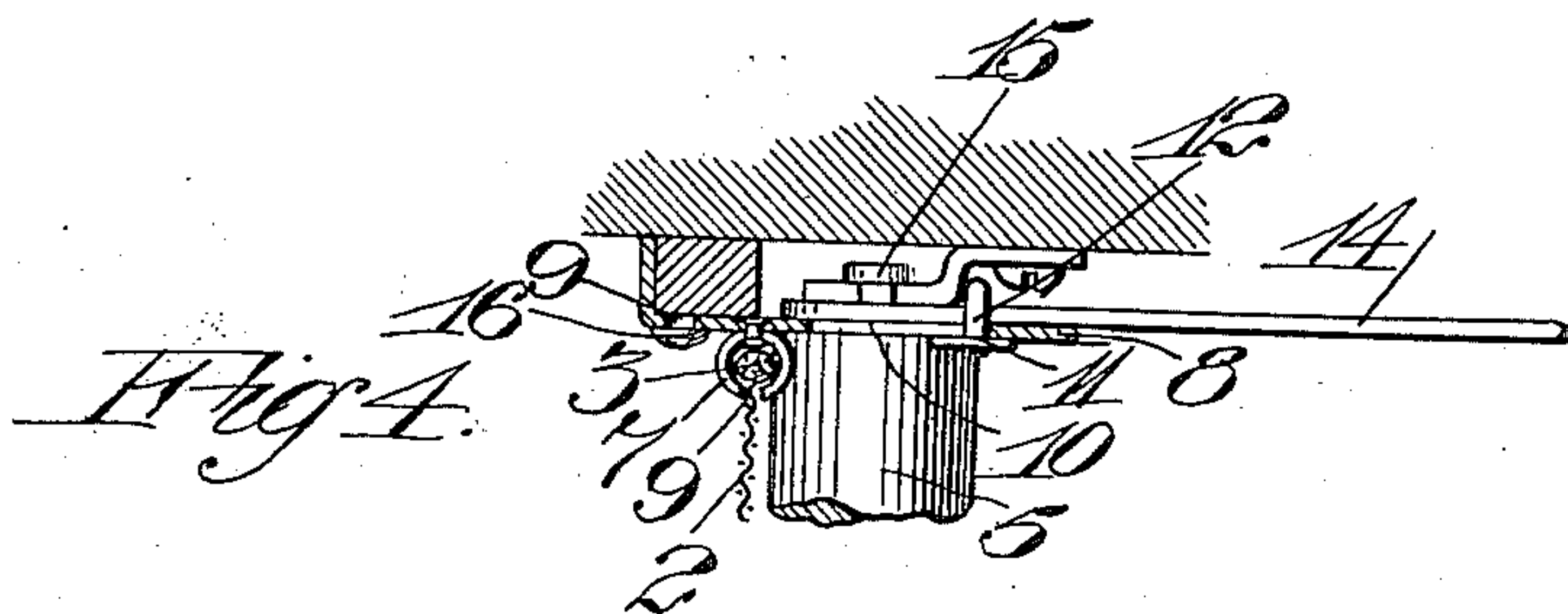


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM A. RAY, OF FITCHBURG, CALIFORNIA.

ADJUSTABLE SCREEN AND CURTAIN ATTACHMENT.

997,849.

Specification of Letters Patent.

Patented July 11, 1911.

Application filed August 10, 1910. Serial No. 576,479.

To all whom it may concern:

Be it known that I, WILLIAM A. RAY, citizen of the United States, residing at Fitchburg, in the county of Alameda and State of California, have invented new and useful Improvements in Adjustable Screen and Curtain Attachments, of which the following is a specification.

This invention pertains to window curtains or screens.

The object of my invention is to provide an effective, adjustable curtain or screen adapted to be mounted in window frames; to provide means whereby the screen or curtain may be readily moved or adjusted to the desired position over the window; and to provide means for the positive locking of the screen to prevent the ingress of insects when the window is raised.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described, and claimed having reference to the accompanying drawings, in which—

Figure 1 is a vertical screen across the window showing the screen rollers extended. Fig. 2 is a similar section showing the screen rollers adjusted to allow the movement of the screen or curtain. Fig. 3 is a partial elevation in section of the screen. Fig. 4 is a transverse section through the frame and screen. Fig. 5 is a detail view of the fixed plate 18.

In the present embodiment of my invention, I have disclosed a sheet 2, which may be either screen or shade material, as desired. The longitudinal edges of this material are stitched around suitable vertically disposed and guided ropes or cords 3, which are supported upon upper and lower rollers 4 and 5, the length of these rollers being substantially equal to the width of the window casing, and the ropes spaced sufficiently apart so that the screen material extends almost across the window.

In order to facilitate the vertical adjustment of the screen or curtain over the window, the upper roller 4 is journaled in the plates 6 which are secured to the upper ends of tubular slotted guides 7, one of which is movable vertically along each side of the window frame, and to the bottom end of each of which is secured an actuating plate 8. The purpose of slotting these guides 7 as at 9, is to allow the thickness or web of the transverse screen to project through the

guides in which are inclosed and guided the adjusting ropes 3. The purpose of the guides 7 is not only to guide and restrain the screen sheet and ropes, but they also form means whereby the upper and lower rollers may be adjusted into close contact with the head of the window frame, and with the sill or stool. To accomplish this adjustment of the rollers 4 and 5, each of the plates 6 and 8 are vertically slotted as at 9^a, and the lower plate is also transversely slotted as at 10 and movable within the slot is a pivot 11 formed at one end of a toggle link 12, which is pivoted at 13 in a lever 14. The ends of the lower roller 5 are mounted pivotally as at 15 in the lower end of the lever 14.

The operation in the adjustment of the rollers 4 and 5 is as follows: In Fig. 1 the lever 14 is shown as standing approximately vertical and the roller 5 which is pivoted at 15 in the lever 14, is pressing firmly down upon the window sill. When in this position the link 12, which is pivoted at 13, in the lever and at 11 in the plate 8, also stands in a substantially vertical position. This relation of the pivot 11 to the pivot 15 of the roller is such, as regards the pivot 13 to the lever 14, as to cause the separation of the plate 8 and the lower roller 5 at this relative position of the parts. As stated, the plate 8 is rigidly secured to the lower end of the tubular slotted guide 7 as is also the upper plate 6, in which the roller 4 is journaled for rotation. The movement of the plates 6 and 8 is guided by means of the slots 9^a and pins 16 driven in the window frame along which the plates 6 and 8 may move. If the upper handled end of the lever 14 is grasped and the lever is turned downwardly and into the room there is simultaneous action occurring relatively between the lower plate 8 and the roller 5, that is, the roller 5 slowly rises in a slot 17 formed in a small plate 18, one of which is fastened on each side of the window, and when the roller has reached the terminus of the slot 17 the link 12 will become effective to pull downwardly the plate 8 and thus through means of the rod 7 draw the roller 4 away from the top of the window. When the lever is turned fully down to the position shown in Fig. 2, the floating pivot 11 will have assumed position shown in the plate 8, and the roller will have been elevated to the position shown in Fig. 2, and

the upper roller pulled downwardly thus entirely removing the screen from engagement with the window top and sill. When in this position a person may grasp the horizontal, exposed convenient edge of the screen and move the same vertically up or down which will, through means of the continuous vertical guided ropes 3 on each end of the screen, roll the upper portion of the screen back or forth over the upper roller, as the case may be. When the screen has been adjusted to the desired position, the levers 14 on either side of the window may be each grasped and turned upwardly to an angle of approximately 90 degrees, which will result in the raising of the plates 8, and their associated guides 7 and the upper roller 4. Meanwhile, the lower roller 5 is being depressed into engagement with the sill of the window.

It will be seen then, that the entire device is simple in structure and easily adjusted to the desired position across the window either when used as a screen across the opening left by the movement of one of the window sashes 20 or 21, or when the fabric is used as a screen to control the light coming through the window. The relative opposite adjustment of the screen carrying and guiding rollers 4 and 5 provide a simple and efficient means whereby the entrance of insects or of dust may be effectually prevented when the window screen or curtain is in the position desired.

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

1. A window shade or curtain comprising a flexible sheet, adjustable rollers at the upper and lower ends of the window around which the sheet passes, endless guide ropes to which the longitudinal edges of the sheet are secured, and slotted guides adapted to contain the ropes and allow for the vertical movement of the sheet material secured to the ropes.

2. A window shade or curtain comprising a flexible sheet, upper and lower rollers and independent adjustable mountings therefor at opposite ends of the window, endless guide ropes to which the longitudinal edges

of the sheets are secured, slotted guides adapted to contain the ropes and allow for the vertical movement of the sheet material secured to the ropes, and means whereby the rollers may be adjusted.

3. A window shade or curtain comprising a flexible sheet, upper and lower adjustable rollers, endless guide ropes to which the longitudinal edges of the sheet are secured, slotted guides adapted to contain the ropes and allow for the vertical movement of the sheet material secured to the ropes, and means whereby the rollers may be adjusted, said means comprising levers pivoted upon the lower roller and plates and links connected to the slotted guides.

4. The combination with a window of horizontally journaled rollers at the top and bottom of the casing, said rollers being adjustably mounted, endless cords passing around the ends of the rollers, vertical tubular guides whereby the cords are maintained in position, said guides having longitudinal slots in their inner bases, and a flexible fabric passing through the slots and having its edges attached to said cords.

5. The combination with a window of horizontally journaled rollers at the top and bottom of the casing, endless cords passing around the ends of the rollers, vertical tubular guides whereby the cords are maintained in position, said guides having longitudinal slots in their inner bases, a flexible fabric passing through the slots and having its edges attached to said cords, and means whereby the rollers may be oppositely adjusted.

6. The combination with a window of rollers, a fabric movable over said rollers, endless cords to which the edges of said fabric are attached, and means whereby the top and bottom of the upper and lower rollers may be adjusted to engage the upper and lower members of a window frame.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM A. RAY.

Witnesses:

CHARLES A. PENFIELD,
CHARLES EDELMAN.