

Sept. 4, 1928.

E. T. MILLS

1,683,204

FLY SCREEN

Filed Oct. 12, 1926

Fig. 1.

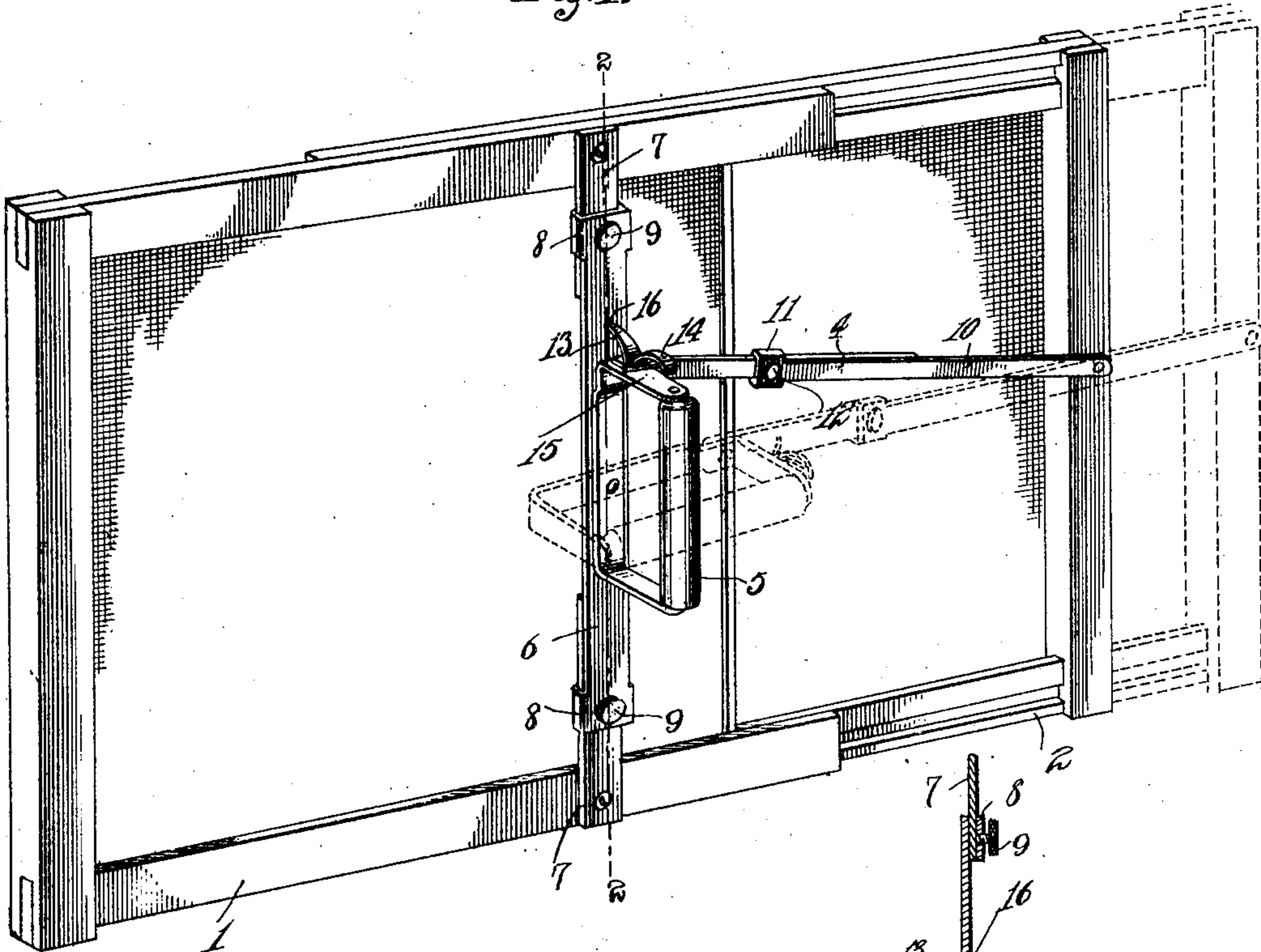


Fig. 3.

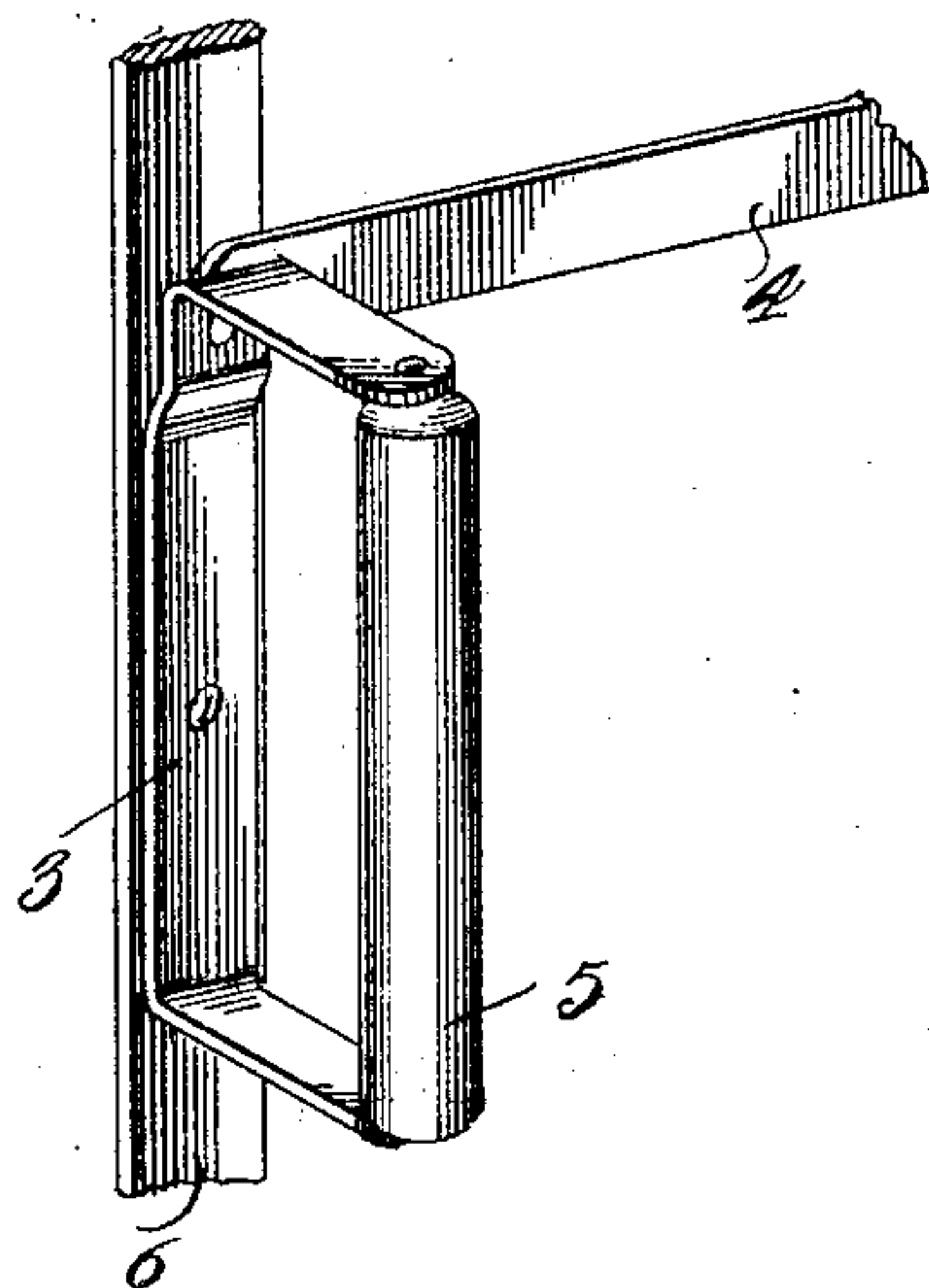
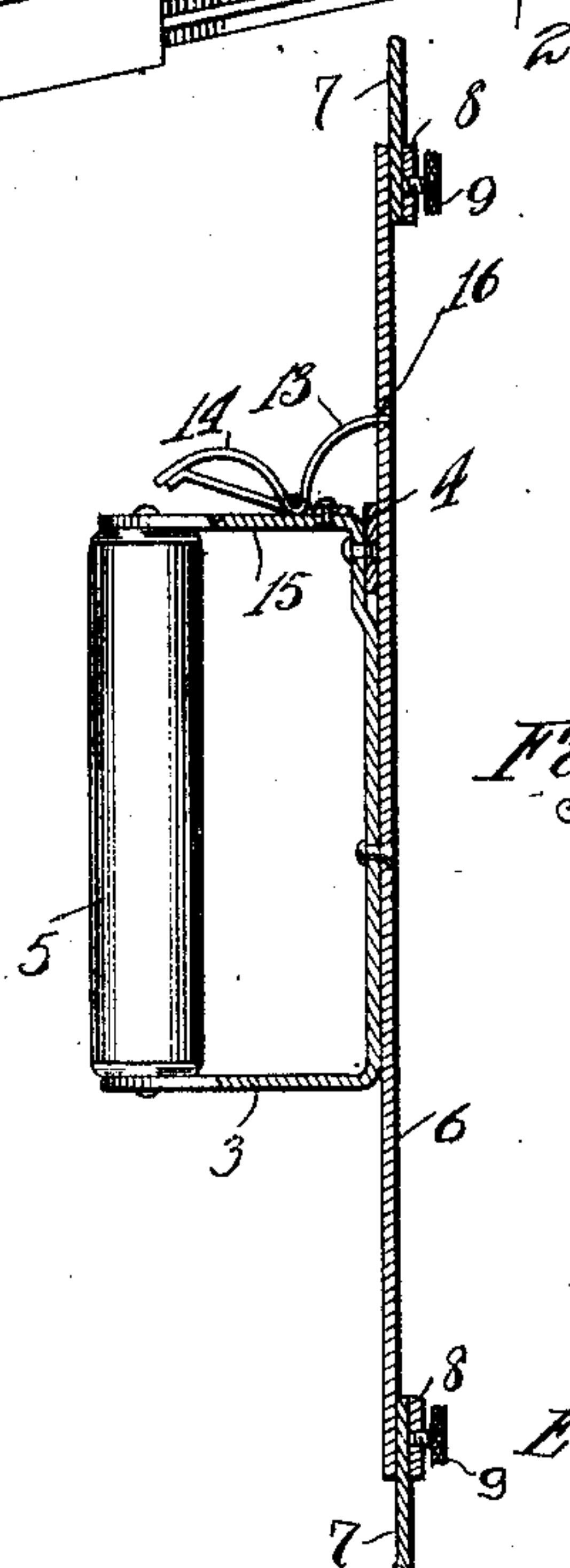


Fig. 2.



Inventor
E. T. Mills.

By

Lacey & Lacey.

Attorneys

UNITED STATES PATENT OFFICE.

EDGAR T. MILLS, OF MILLVILLE, WEST VIRGINIA.

FLY SCREEN.

Application filed October 12, 1926. Serial No. 141,160.

The invention contemplates novel operating means for a fly screen, or like part, for a window or other opening to admit of the screen being manipulated by one hand, both when placing it in position or removing it from the window, thereby leaving the other hand free to support the sash, if necessary, or for any purpose whatsoever.

The invention is particularly advantageous in connection with windows having non-counterbalanced sliding sashes and adapted to receive adjustable fly screens, since one hand may be engaged in holding the sash while the other hand is occupied in manipulating the screen, either to place it in position or remove it from the window, as required.

The invention provides in combination with a sectional fly screen, operating means whereby the screen may be simultaneously manipulated and adjusted by one hand, said means including a pivoted member mounted upon one section of the screen and a link forming connecting means between the pivoted member and the other section of the screen.

The invention furthermore contemplates lock means in connection with the screen operating means for holding the same and the screen in the required adjusted position.

While the drawings illustrate a preferred embodiment of the invention, it is to be understood that in adapting the means to meet specific needs and requirements, the design may be varied and such other changes in the minor details of construction may be resorted to within the scope of the invention as claimed, without departing from the spirit thereof.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and the drawings hereto attached, in which—

Figure 1 is a perspective view of a fly screen provided with operating means embodying the invention, the dotted lines indicating an adjusted position of the screen and the operating mechanism.

Figure 2 is a sectional detail on the line 2—2 of Figure 1, and

Figure 3 is a detail perspective view of a modification.

Corresponding and like parts are referred to in the following description and designated in the several views of the drawings by like reference characters.

The fly screen illustrated is of the type comprising sliding sections, and adapted to be extended to fit different sizes of windows, as well as to provide for holding the screen in place and admit of its removal from the window as occasion may require. The screen illustrated comprises a fixed section 1 and a movable section 2 and may be of any approved construction, the section 2 being slidable and held to the section 1 in any determinate way.

The operating means comprises a pivoted member 3 and a link 4, the member 3 being pivoted to the section 1 and the link 4 forming connecting means between the pivoted member and the section 2. For convenience, the pivoted member 3 is shown as consisting of an approximately U-shaped frame having the extremities of the side members connected by means of a handle 5. A bar 6 constitutes supporting means for the pivoted member 3 and this bar connects opposite members of the screen frame. The bar 6 as well as the link 4 may comprise sections which are adjustably connected to provide for adapting the operating mechanism to screens of different sizes. Sections 7 slidably engage loops 8 at the ends of the bar 6 and are secured in the required adjusted position by means of clamp screws 9. The section 10 comprising the link connection is provided at one end with a loop 11 to receive the inner section of the link, a clamp screw 12 securing the section 10 in the required adjusted position. It is observed that the member 3 is pivoted intermediate its ends to the supporting bar 6, and that the link 4 is pivotally connected at its inner end to an end of the member 3, whereby a pivotal movement of the member actuates the link 4 in a manner to move the section 2 of the screen in or out, as desired. In the preferable arrangement the operating mechanism is centrally disposed between the upper and lower frame members of the screen, so as to obviate any binding tendency of the section 2 when adjusting the same in or out.

Locking means are associated with the screen operating mechanism to secure the parts in the required adjusted position. The locking means consist of a latch 13 pivoted at one end to an end of the member 3, a finger piece 14 projecting from the latch 13 and a spring 15, the latter normally exerting a pressure to hold the latch 13 in operative position. An opening 16 is formed in the

supporting bar 6 to receive the end of the latch 13, when the section 2 is moved inward. An opening 17 formed in the link 4 receives the end of the latch 13 when the section 2 is extended to hold the same projected. The latch is conveniently positioned to admit of its engagement by the thumb of the hand grasping the handle 5 of the pivoted member 3, so that the lock mechanism and the operating mechanism may be manipulated at the same time by one hand.

In the modification shown in Figure 3, the supporting bar 6 and the link 4 may be of a determinate length to suit a fly screen of determinate size, and the lock mechanism is dispensed with since the parts are positioned to admit of the link 4 and member 3 alining when the movable section of the screen is projected to the limit of its movement. In this position, the pivot connection of the member 3 with the bar 6, the pivot connection of the link 4 with the member 3 and the pivot connection of the link with the movable section of the screen will lie in the same straight line, thereby forming a lock joint to hold the screen extended, as will be readily understood.

When applying the operating mechanism to a fly screen of the type embodying sliding sections, the latter are extended so as to fit the window for which the screen is intended. The operating mechanism is next placed in position upon or against a side of the screen with the pivoted operating member 3 perpendicular to the supporting bar 6 and when so adjusted the outer end of the link 4 is secured to the end bar of the adjustable screen section, and the ends of the supporting bar 6 are made fast to opposite frame members of the fixed screen section 1. When the operating mechanism is properly applied, the pivoted operating member 3 occupies an approximate central position of the screen and constitutes a handle by means of which the screen may be manipulated when placing it in position, or removing it from a window.

When the member 3 occupies a position parallel with the supporting bar 6 the movable section of the screen is drawn inward. When applying the screen to a window having a non-counterbalanced sash, the latter may be raised and held in position by one hand, while at the same time, the other hand grasps the operating member 3 and places the screen in position, after which the member 3 is given a one-quarter turn to project the adjustable screen section 2 whereby to engage opposite ends of the screen in the ways in which the sash slides. After the screen has been positioned the sash is lowered so as to rest thereon. When it is required to remove the screen from the window, one hand is engaged in lifting the sash resting upon the screen and holding the sash

elevated, while the other hand grasps the handle of the pivoted operating member and turns the same to withdraw the adjustable screen section, after which the screen may be readily removed from the window, as will be readily appreciated. It will thus be understood that a fly screen embodying the invention may be readily manipulated by one hand, the other hand being free to be occupied in control of a sash of the window, or in any other way that may be required.

Having thus described the invention, I claim:

1. Operating mechanism for an extensible screen comprising a support adapted to be secured to one section of a screen in a vertical position, a handle pivoted to said support intermediate its length, a link having one end pivoted to said handle adjacent one end thereof and adapted to extend therefrom longitudinally of the screen with its other end pivoted to another section of the screen, and a latch carried by the handle to releasably secure the handle in a set position with the screen adjusted.

2. Operating mechanism for an extensible screen comprising a support adapted to be secured to one section of a screen in a vertical position, a handle consisting of a U-shaped bracket secured to said support with its arms projecting outwardly therefrom and a hand grip between the outer ends of the arms, a link having one end pivoted to said handle adjacent one arm and its other end adapted to be pivotally connected with another section of the screen, and a latch to releasably retain the handle in a set position carried by one arm of the handle.

3. Operating mechanism for an extensible screen comprising a support adapted to be secured to one section of a screen in a vertical position, a handle consisting of a U-shaped bracket secured to said support with its arms projecting outwardly therefrom and a hand grip between the outer ends of the arms, and a link having one end pivoted to said handle adjacent one arm thereof and its other end adapted to be pivotally connected with another section of the screen whereby the screen sections may be moved relative to each other when the handle is turned.

4. Operating means for an extensible screen having sections slidable transversely of each other, said operating means comprising a support having an intermediate section and end sections adjustably connected with the intermediate section and adapted to be secured to upper and lower portions of one screen section with the support disposed vertically thereof, a handle pivoted to the intermediate section of said support intermediate the length thereof, and a link having sections adjustable longitudinally of each

other, one section having its outer end pivoted to said handle and the other having its outer end adapted to be pivotally connected with the other section of the screen.

5 5. Operating means for an extensible screen having sections slidable transversely of each other, said operating means comprising a support adapted to be secured in a vertical position adjacent the inner end of
10 one screen section, a handle having a U-shaped body pivoted to said support with its arms extending outwardly from the sup-

port, a latch carried by one arm and having a tooth projecting from the inner end of the arm and engageable with the support to releasably hold the handle in a set position, and a link pivoted at one end to said handle adjacent one arm thereof and having its other end adapted to be pivotally connected with the outer end portion of the other
20 screen section.

In testimony whereof I affix my signature.

EDGAR T. MILLS. [L. s.]