

G. W. DARLINTON.
STORM WINDOW OR SCREEN HANGER.
APPLICATION FILED MAR. 19, 1910.

974,953.

Patented Nov. 8, 1910.

Fig. 1.

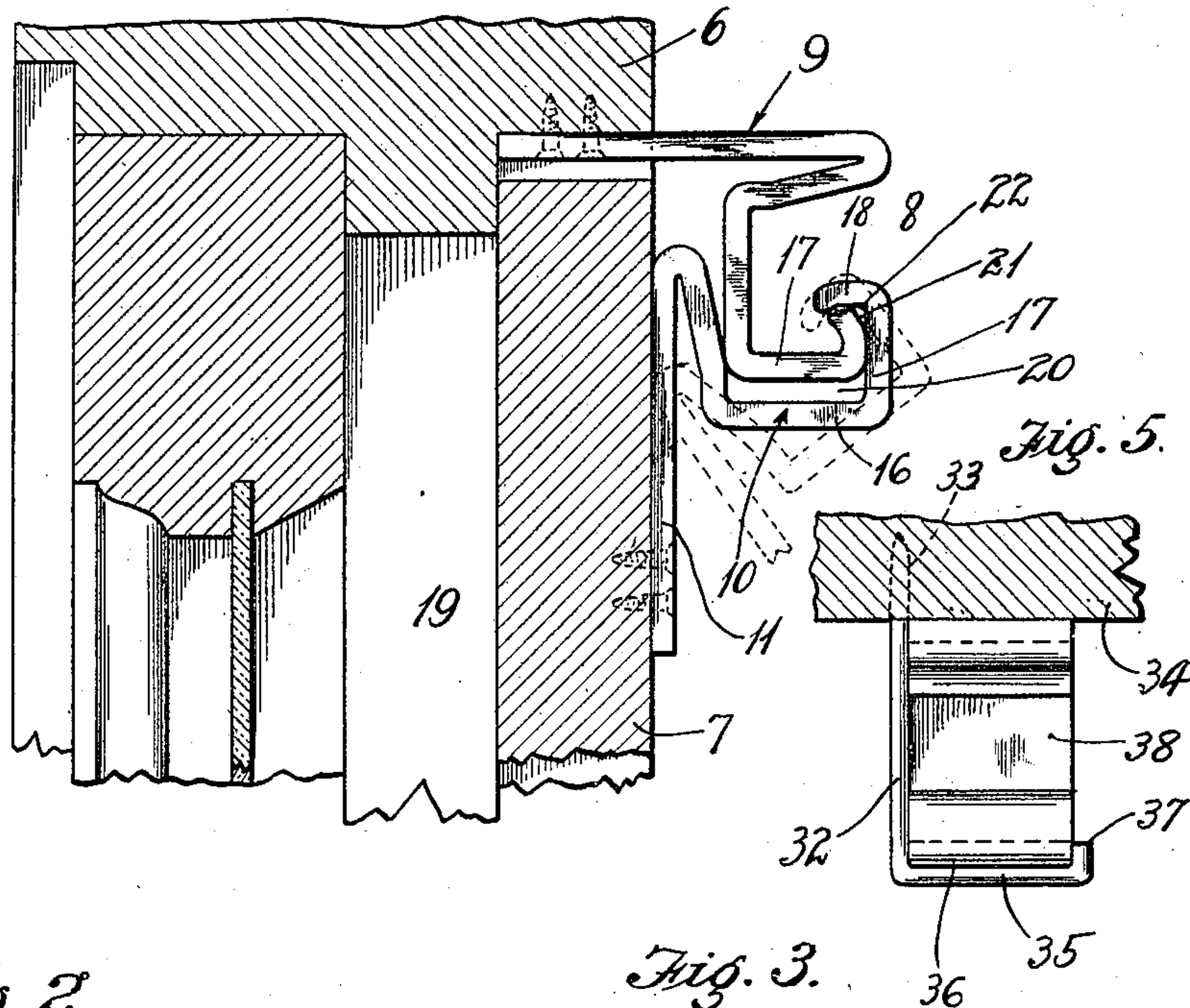


Fig. 2.

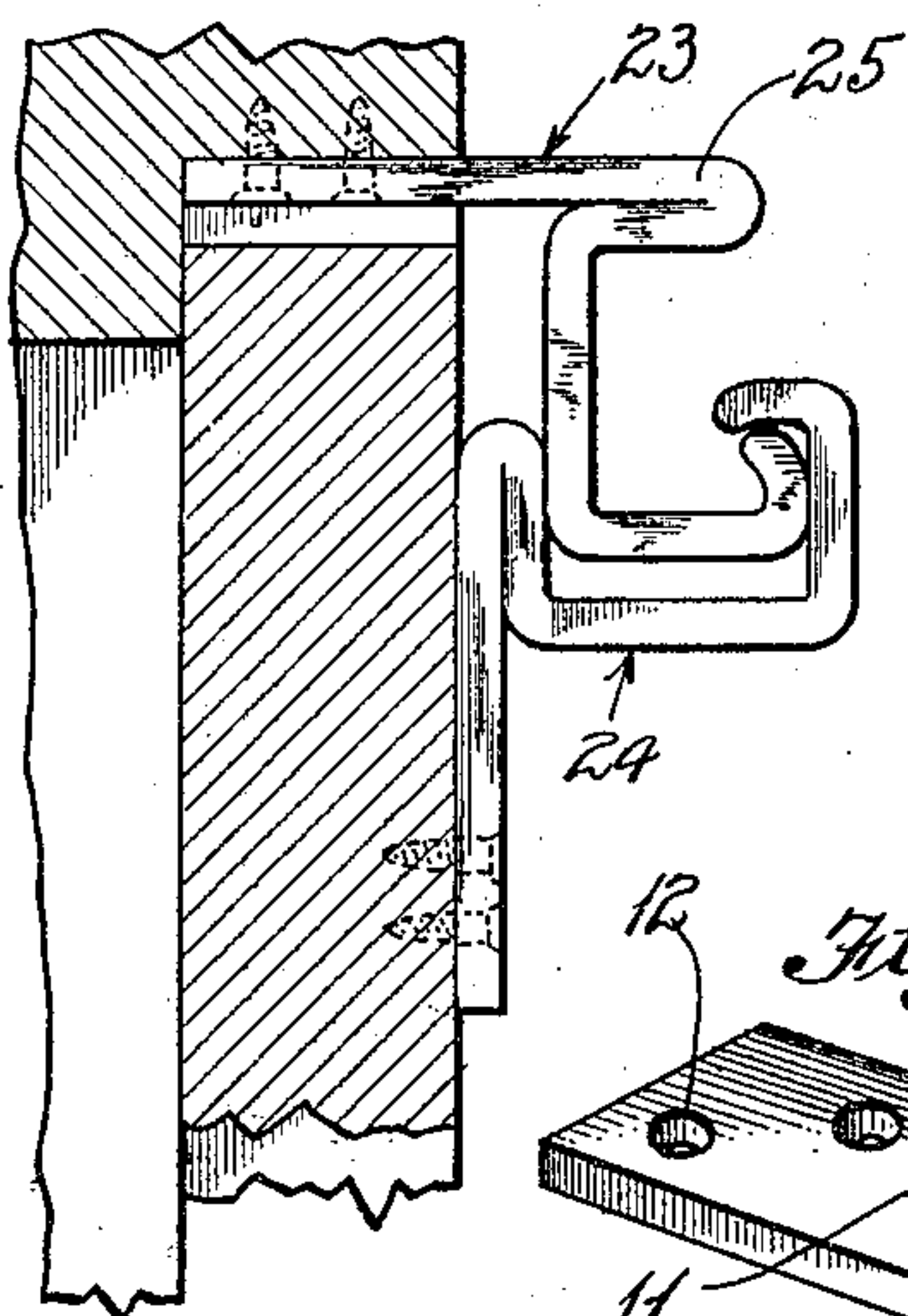


Fig. 3.

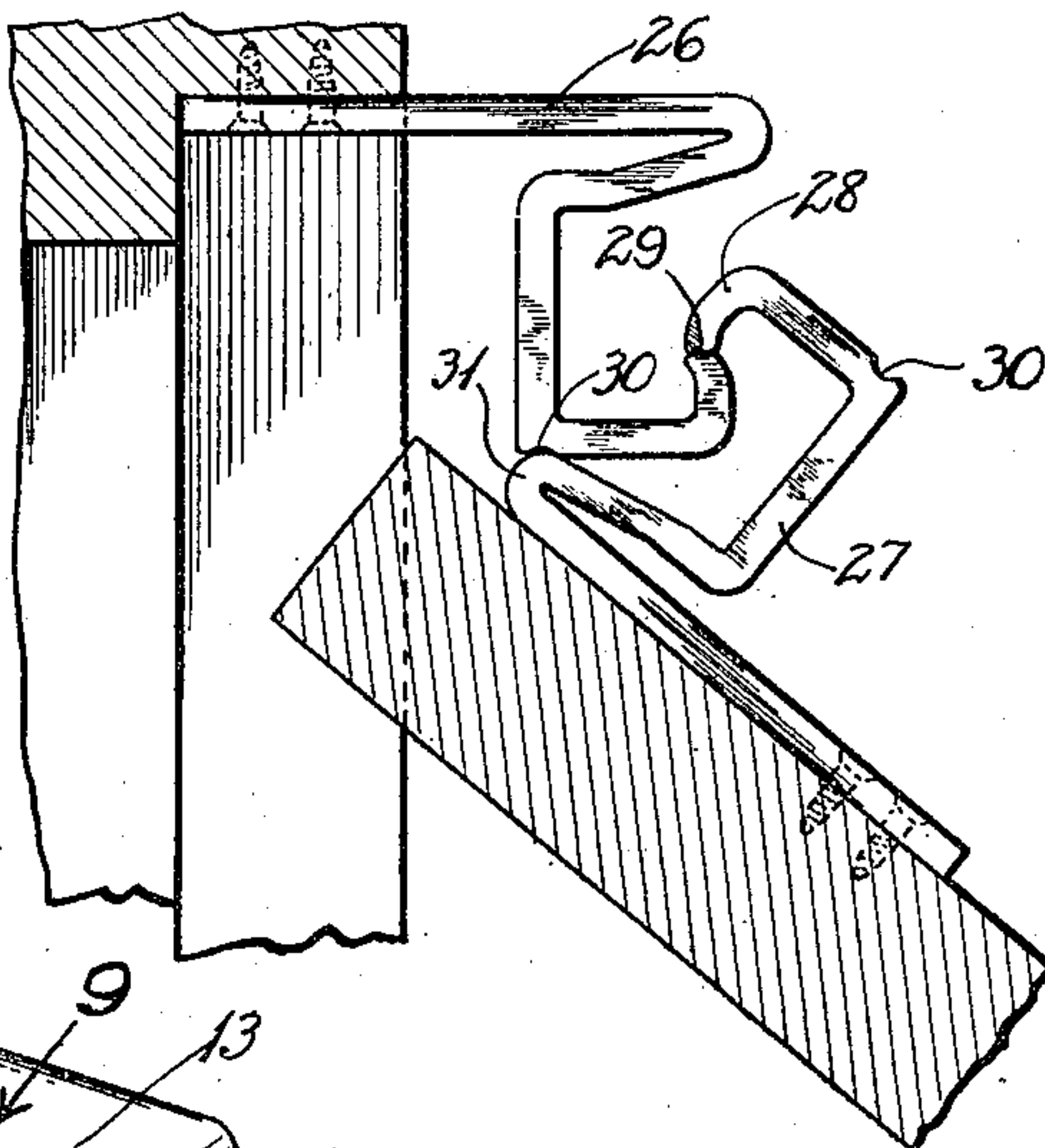
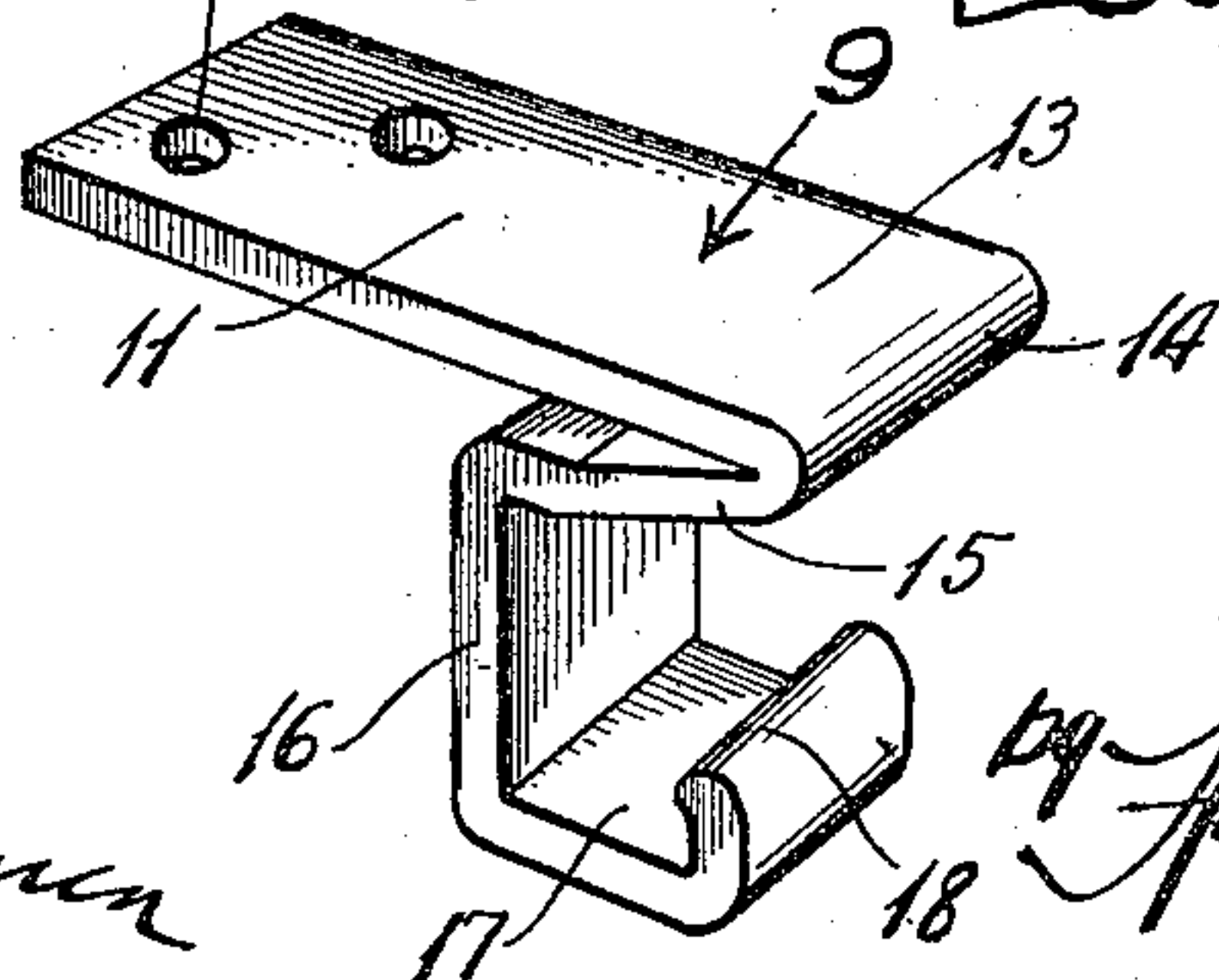


Fig. 4.



Witnesses:

E. P. Rollard

J. H. Vimmer

Inventor:
George W. Darlinton.

by *Harold Shouse*
Attys.

UNITED STATES PATENT OFFICE.

GEORGE W. DARLINTON, OF LOS ANGELES, CALIFORNIA.

STORM WINDOW OR SCREEN HANGER.

974,953.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed March 19, 1910. Serial No. 550,483.

To all whom it may concern:

Be it known that I, GEORGE W. DARLINTON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Storm Window or Screen Hangers, of which the following is a specification.

This invention relates to a hanger for screens, shutters or blinds, and the object of the invention is to produce a device of this kind which comprises two parts which are duplicates of each other, one of which may be attached to the window frame and the other of which is attached to the screen, shutter or blind. The parts are constructed so that they interlock with each other to support the screen but at the same time they permit of a certain amount of play which is desirable in a device of this kind. By holding the screen at a certain angle the parts of the hanger can be disengaged from each other so as to enable the screen to be removed from the window frame if desired.

A further object of the invention is to construct the parts of the hanger so as to enable the screen to be held open simply by the operation of the hanger, and to provide means for preventing the parts of the hanger from becoming disengaged from each other by a lateral movement.

In the annexed drawing which fully illustrates my invention, Figure 1 is a vertical section taken through the upper portion of a window frame and illustrating the construction and manner of attaching my hanger to support the screen. Fig. 2 is a view similar to Fig. 1, but showing a modified form of the invention. Fig. 3 is a view similar to Fig. 2, but showing the preferred form of the device and illustrating the manner in which it can be operated to enable the screen to be supported in an open position. Fig. 4 is a perspective of one of the members of the hanger of the form shown in Fig. 1. Fig. 5 is a plan of one of the members of the hanger showing a portion of the screen in section and illustrating the means I employ to prevent the screen from moving laterally.

Referring more particularly to the parts, 6 represents the lintel of a window frame in which a screen 7 is supported by means of a pair of my hangers 8. The hanger 8 is formed in two parts or members 9 and 10

and these members have the same form. Referring to Fig. 4, each member presents a tang 11, the outer end of which is provided with openings 12 for fastening devices, the inner end of which is bent around so as to form a bill 13, and a bent edge 14, From the edge 14 the material is bent into an inclined extension 15 forming part of the bill, and beyond this extension 15 the material is bent at right angles to the tang 11 so as to form a shank 16. Beyond the shank 16 the material is bent to form a hook 17, the body of which is disposed parallel with the tang 11, and the end of this hook is turned upwardly so as to form an inwardly bent curved lip 18. The tang 11 of the member 9 is attached to the under side of the lintel 6 so that the bill 13 thereof projects outwardly from the window as indicated. It should be understood that two or more of these hangers are employed at each window. To the upper part of the screen 7 the member 10 is attached with the tang 11 projecting downwardly.

The screen may be hung on the members 9 by holding the screen in substantially a horizontal plane and interlocking the hooks 17 with each other. After the hooks are interlocked the screen can then be swung inwardly so that the screen members 10 will come into substantially the position shown in dotted outline in Fig. 1. A further inward movement of the screen will seat it against the stop 19 of the window frame. In this movement the lips 18 roll upon each other so that a rotation takes place virtually about an axis near the point of contact of the lips 18. As this rotation takes place the bill 13 of the member 10 forces itself up behind the shank 16 of the member 9, and the parts are proportioned in such a way that a slight inward pressure is given by the bill to the upper part of the screen which tends to hold it against the stop 19, as will be readily understood. When the members 9 and 10 are interlocked, as indicated in Fig. 1, it will be observed that the hook 17 of the member 9 is disposed slightly above the shank 16 of the member 10 so that a gap or open space 20 is formed at this point. This is one of the advantages of the device for it permits the screen to be raised slightly at either side when the lower edge of the screen comes upon the sill of the window frame. In this way the hangers give the

effect of a hinge as far as presenting an axis of rotation is concerned, but each hanger gives a certain amount of play or vertical adjustment as the screen comes into its closed position.

Special attention is called to the fact that the virtual axis of rotation of the hanger is removed a considerable distance from the face of the stop 19 against which the screen seats, and this is advantageous as it facilitates the seating of the screen upon the stop. Special attention is called to the fact that the lips 18 are bent inwardly so that when the screen is in its closed position, the lips interlock upon each other, as shown, with the outer curved face 21 of the lip of the member 9 disposed in the angle 22 at the root of the lip 18 of the other member. From this arrangement when the lower end of the screen is swung outwardly a slight rolling movement takes place on the curved face 21, that is, the inner side of the hooks 17 of the member 10 rolls and slides on this face.

In Fig. 2 I illustrate a modified form of the device which I adopt when it is not necessary or desirable to provide the resilient bill 13. In this form of the invention the construction of the members 23 and 24 is substantially the same as before except that at the bills 25 the material is doubled flat against itself, as indicated. When the hanger is of this form it operates in the same manner as when in the form shown in Fig. 1, except that the bill does not have the resilient effect referred to.

The preferred form of the invention is shown in Fig. 3. In this form the members 26 and 27 of the hanger are of the same form as shown in Fig. 1 except that the tips of the lips 28 are formed with flat end faces 29 which may be made to engage each other by raising the screen slightly when in an inclined position such as that shown in Fig. 3. In addition to this the outer sides of the hooks 17 are formed with transverse channels or grooves 30. The channel 30 of the member 27 does not perform any function, but is present so as to enable the member 27 to be used as the fixed member 26 if desired. The groove 30 of the fixed member 26 forms a seat for the bent edge or end of the bill 31 of the member 27, when the faces 29 of the lips are in engagement with each other, as shown. This will hold the screen in a condition of equilibrium, as illustrated in Fig. 3; thus it will be seen that the screen can be held in an open position by means of the hangers and without employing any other means for this purpose.

In some cases it may be desirable to prevent the inner members from becoming disengaged from each other by a lateral sliding movement. For this purpose I provide a keeper 32, the body of which is in the form

of a flat bar having a point 33 which is driven into the outer face of the screen 34, as shown in Fig. 5. The outer end of the keeper 32 has a shank 35 which extends across the outer face of the hook 36 and the end of this shank has an inwardly projecting toe 37 which engages the opposite side of the hook. When the other member is in engagement with this member 38 it will be evident that the keeper will operate to prevent a lateral movement of the screen in one direction. By providing a similar keeper in connection with the other hanger of the screen a lateral movement of the screen in either direction will be prevented.

It will be evident that with a hanger as described both members of the hanger are of identical form which prevents the necessity for the use of separate dies or tools for making the different parts of the hanger. It will be evident also that when the screen is in its closed position the hanger holds it against movement outwardly from the plane of the window frame or inwardly. For this reason the screen can be used if desired without a stop or seat for the inner face of the screen. In other words, while the hanger gives a vertical play when the screen is closed it does not permit it any horizontal play in a plane at right angles to the plane of the window frame. This results from the fact that the hook extension 17 of the fixed hanger fits nicely in the space between the hook extension 17 of the movable member and the bill of the movable member, as indicated in Fig. 1.

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

1. A device of the class described, comprising a member adapted to be attached to a fixed support, a second member adapted to be attached to a movable support, said member having the same form as said first member, said members having interlocking hooks formed thereupon permitting a rotation of one of said members upon the other.

2. A device of the class described, comprising a member adapted to be fixed to the window frame and having a hook formed thereupon, said hook having a laterally disposed lip, a second member having the same form as said first member adapted to be attached to the screen having a hook adapted to interlock with said first hook and having a laterally disposed lip corresponding to said first lip and interlocking therewith.

3. A device of the class described, comprising a member adapted to be fixed to the window frame and having a hook, a second member adapted to be attached to the screen having a hook adapted to interlock with said first hook, said hooks being arranged to permit a relative vertical movement therebetween when said screen is in its closed po-

70

75

80

85

90

95

100

105

110

115

120

125

130

sition and permitting an outward rotation of said screen upon an axis at the point of engagement of said hooks.

4. A device of the class described, comprising a member adapted to be fixed to the window frame and having a downwardly extending hook, a second member adapted to be attached to the screen and having an upwardly projecting hook, said hooks being adapted to engage each other at a point removed from the window frame, the engaging point forming an axis of rotation for the screen.

5. A device of the class described, comprising a member adapted to be fixed to the window frame having an outwardly projecting bill and having a downwardly disposed hook, a second member adapted to be attached to the screen having an upwardly projecting bill and having an outwardly projecting hook adapted to interlock with said first hook, the engaging point of said hooks forming an axis of rotation permitting the screen to be swung outwardly from the window frame.

6. A device of the class described, comprising a member adapted to be attached to the window frame having a hook projecting outwardly, said hook having an upwardly projecting lip, a second member adapted to be attached to the screen having an upwardly projecting hook with an inwardly projecting lip, said latter lip being adapted to rest upon the end of said first lip, said

second member having a part seating on said first hook to support the screen in an open position.

7. A device of the class described, comprising a member adapted to be attached to the window frame having a hook projecting outwardly, said hook having an upwardly projecting lip, a second member adapted to be attached to the screen having an upwardly projecting hook with an inwardly projecting lip, said latter lip being adapted to rest upon the end of said first lip, said second member having a part seating on said first hook to support the screen in an open position, said first hook having a seat formed thereupon adapted to receive said part and retain the same.

8. A device of the class described, comprising a member adapted to be fixed to the window frame and having a hook, a second member adapted to be attached to the window screen and having a hook engaging said first hook and adapted to support the screen when swung outwardly, and a keeper attached at the side of one of said members and preventing lateral movement of the opposite member.

In witness that I claim the foregoing I have hereunto subscribed my name this 14th day of March, 1910.

G. W. DARLINTON.

Witnesses:

F. D. AMMEN,
EDMUND A. STRAUSE.