No. 697,020. Patented Apr. 8, 1902.

C. ROWLAND.

MEANS FOR HANGING SCREENS.

(Application filed July 11, 1901.)

(No Model.)

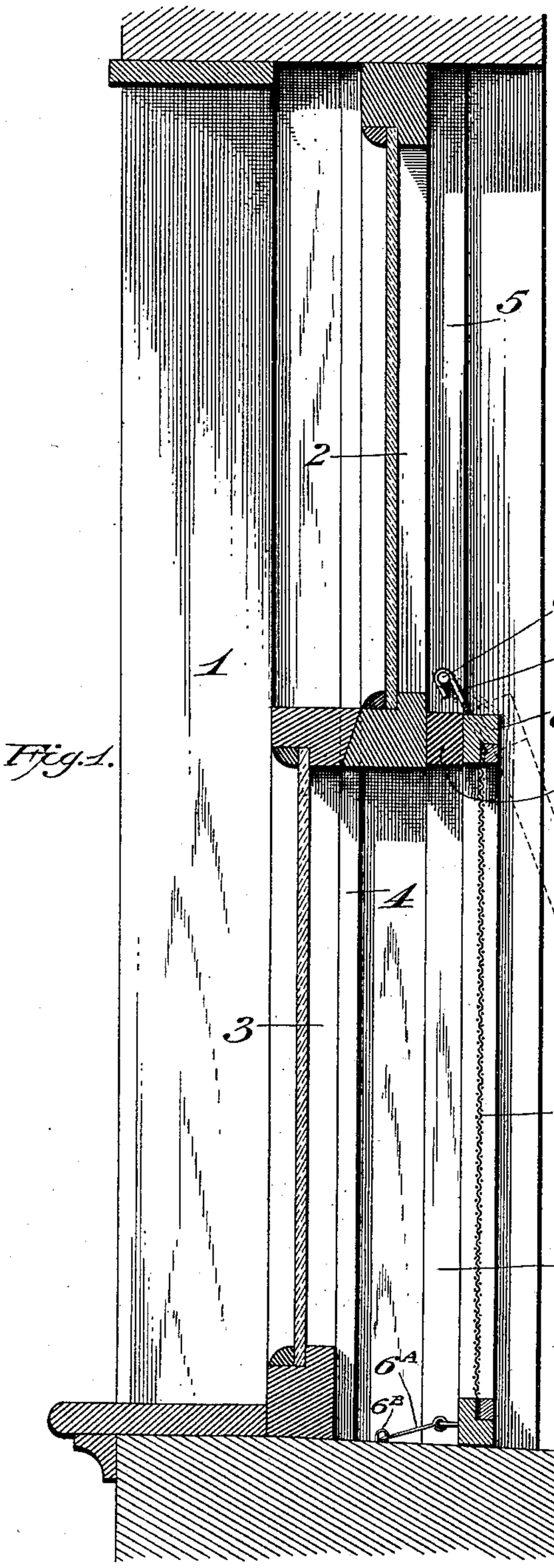

Fig. 1.

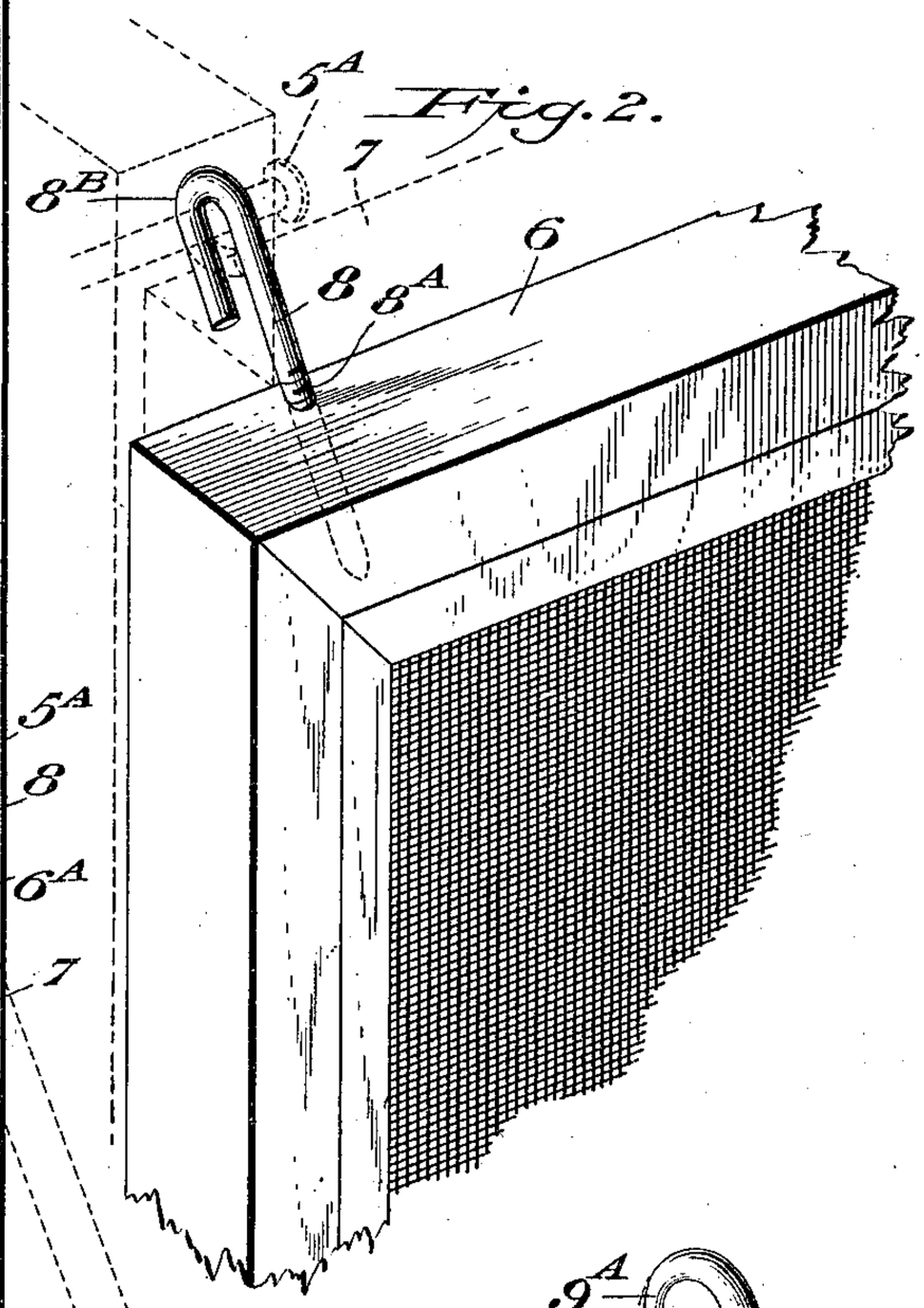

Fig. 2.

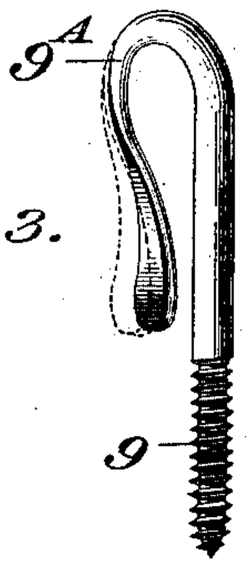

Fig. 3.

Witnesses:
G. Sargent Elliott.
Clara Irwin.

Inventor:
Calvin Rowland
By H. S. Bailey Attorney.

UNITED STATES PATENT OFFICE.

CALVIN ROWLAND, OF DENVER, COLORADO.

MEANS FOR HANGING SCREENS.

SPECIFICATION forming part of Letters Patent No. 697,020, dated April 8, 1902.

Application filed July 11, 1901. Serial No. 67,920. (No model.)

To all whom it may concern:

Be it known that I, CALVIN ROWLAND, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Means for Hanging 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 figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in screens and in means for attaching screens to window-frames.

The object of my invention is to provide means whereby a screen can be quickly secured in position in a window-frame in such a manner that the screen shall have a swinging instead of a sliding movement with relation to the window-frame, thus dispensing with the usual sliding attachments, which not only mar the appearance of the window when the screen is removed, but require considerable time in the proper adjustment thereof upon the frame of the window.

A further object of my invention is to secure a screen in a window-frame in such a manner that either the upper or lower sash may be raised or lowered without interfering with the screen or without first having to raise the screen in order to have access to the sash.

The invention further consists in the novel means for and manner of attaching screens to window-frames, as will be set forth in the accompanying specification and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a vertical sectional view through a window-frame, showing a screen in its normal or closed position in full lines and swung out or open in dotted lines. Fig. 2 is a perspective view, full size, of a corner portion of a screen, showing my improved screen-supporter screwed into the upper horizontal member of the frame thereof. Fig. 3 is a view of a modified form of screen-supporter, the dotted lines showing how the shorter member thereof can be sprung out.

The screens in use are of three kinds—viz., those which are placed directly beneath the upper sash and those which are positioned to slide up and down, these being generally secured to the blind-stop of the window-frame, which is positioned immediately along the outside of the upper sash, and those which are hinged with the common form of hinge to stand vertically like a blind and swing to one side of the window. All these forms are objectionable—in the first, because the upper sash cannot be lowered without first removing the screen; second, the screen can be raised to either sash desired, but if weather-strips are used on the windows they must be removed before the screen can be applied and cannot be applied while the screens are on the window, in this arrangement the frequent swelling of the frame consequent upon atmospheric changes often rendering it almost impossible to raise it or to lower it after it has been raised, and in the third the vertical screen swings against the adjacent edge of the window and in time breaks the hinges, or draws the hinge-screws, or breaks the screen. By the use of my invention these objections are entirely obviated, as the screen is positioned in the frame of the window to the rear of the upper and lower sash, thus permitting either sash to be manipulated independently of the screen, and the expansion or contraction of the frame, due to atmospheric changes, will not in the least affect the swinging movement of the same.

Referring to the drawings, the numeral 1 indicates a window-frame of ordinary construction; 2 and 3, the upper and lower sashes, respectively; 4, the parting-strip, and 5 the blind-strip.

The screen 6 when closed is designed to lie against the rear sides of the blind-strips 5, as shown, and extends from the lower part of the upper sash to the base of the frame, though, if desired, it may extend the full length of the frame.

Between the upper member of the frame of the screen 6 and the lower member of the upper sash is interposed a strip of wood 7, which closes the space between these members and prevents the entrance of flies or other insects. Near each corner of the upper horizontal member of the frame of the screen I attach my improved screen-supporter 8.

This supporter, as will be seen by reference to the drawings, is made from a piece of stout wire, one end of which is screw-threaded, as shown at 8^A, and the other end is bent to form a hook or loop 8^B, which is designed to engage a nail or screw 5^A in such a manner as to have a swinging movement thereon, or, if preferred, an eye 8 may be formed, as shown in the dotted lines in Fig. 2. It will be observed that the supporter 8 is screwed into the upper member of the screen-frame near its inner edge and at an angle of about thirty degrees. The reason for this is that as the screen 6 lies against the rear side or outside face of the blind-strip 5 and the nail or screw 5^A, upon which the supporter 8 swings, is secured on the inner side or face of the blind-strip 5 the supporter 8 must be inclined or lie at an angle in order to engage the nail or screw 5^A.

The bottom member of the screen-frame 6 is provided with an ordinary securing-hook 6^A, which engages a staple 6^B, secured to the base of the window-frame.

In Fig. 3 I have shown a modified form of supporter, which has the screw-threaded portion 9 and a hook or loop portion 9^A, which is reduced in thickness, as shown, so as to be capable of being sprung out, as indicated by the dotted lines. With this form of supporter the loop 9^A is forced over the nail or screw 5^A when the screen is attached to the window-frame, and the spring member of the loop will thus prevent the accidental displacement of the screen.

From the foregoing it will be seen that a screen positioned and secured as herein described possesses superior advantages to the screens now in use, that it is only the work of a moment to attach or detach it, that the swing rather than the sliding motion makes it much easier to open and close, and that the expansion or contraction of the frame due to atmospheric causes cannot affect the action of the same.

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

In an improved pivotal support for window-screens the combination with the window-frame, of a screen-frame provided with a projecting strip adapted to extend between the blind-stops and to the meeting-rail of the upper sash of said window a screw provided with a hook having a resilient end adapted to be sprung to or away from the body of said screw, and screwed into the top of said frame at such an angle and at a distance from each end of said screen-frame that it extends to the inner faces of the oppositely-disposed blind-stops and a nail or pin extended loosely through the loop of said screw and into the inner faces of said blind-stops, and means for securing the said screen-frame against the outer faces of said blind-stops of said window-frame, substantially as described.

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

CALVIN ROWLAND.

Witnesses:
G. SARGENT ELLIOTT,
CLARA IRWIN.