No. 754,809. PATENTED MAR. 15, 1904.

C. ROWLAND.

SEPARABLE HINGE FOR SCREENS.

APPLICATION FILED JULY 2, 1903.

NO MODEL.

Fig. 1.

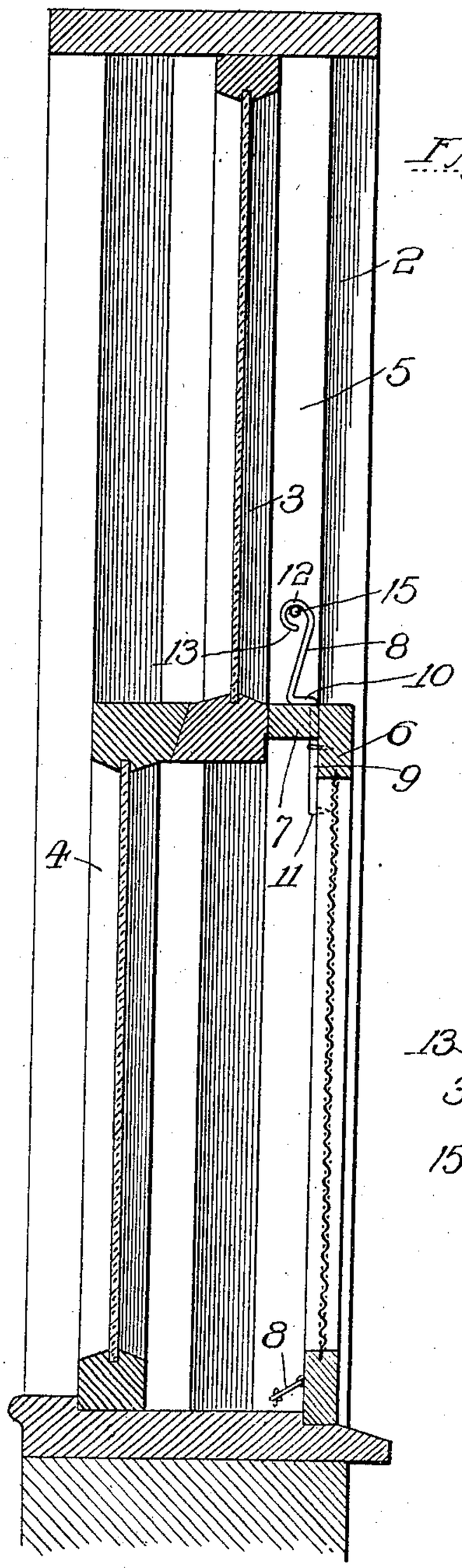

Fig. 2.

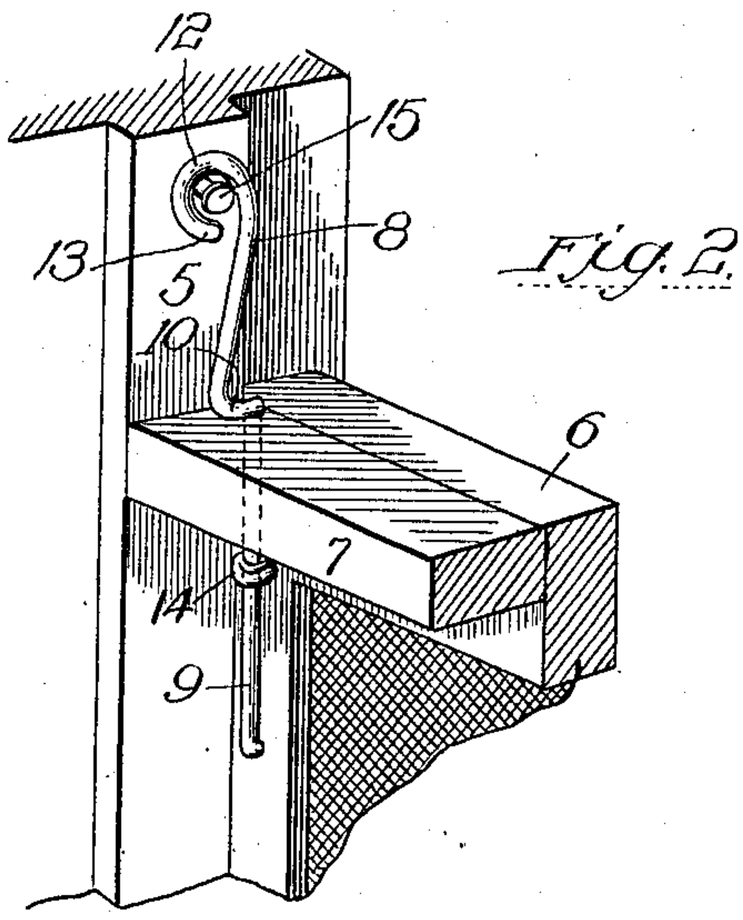

Fig. 3.

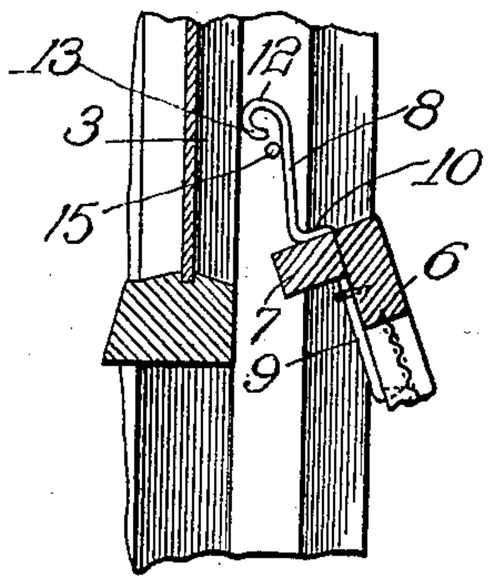

Fig. 4.

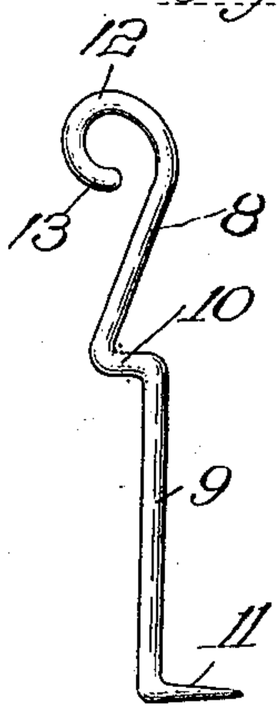

Fig. 5.

Witnesses:

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No. 754,809. Patented March 15, 1904.

UNITED STATES PATENT OFFICE.

CALVIN ROWLAND, OF DENVER, COLORADO, ASSIGNOR TO THE ROWLAND MANUFACTURING COMPANY, OF DENVER, COLORADO, A CORPORATION OF COLORADO.

SEPARABLE HINGE FOR SCREENS.

SPECIFICATION forming part of Letters Patent No. 754,809, dated March 15, 1904.

Application filed July 2, 1903. Serial No. 164,054. (No model.)

To all whom it may concern:

Be it known that I, CALVIN ROWLAND, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented a certain new, useful, and Improved Separable Hinge for Screens, (Case No. 1,) of which the following is a specification.

My invention relates to hangers or supports for pivotally suspending half-size screens in windows. It is rapidly becoming the custom to pivot screens at the top instead of arranging the same to slide in the window-frame. Various devices have been contrived for securing half-size screens in this way. Most of these devices cost more to buy and apply than it costs to make and apply a sliding screen or one which is secured either by permanent fastenings or hooks. For this reason the use of pivotal supports, though acknowledged to be better and to afford convenience, has been avoided by carpenters and contractors who supply and hang screens. This is illustrated in the case of the hanger that is shown and described in my Letters Patent No. 702,886, of June 17, 1902, which has gone into very general use, while the more expensive hinge-and-pivot supports have met with little favor.

My patented hanger can be easily and quickly applied and enables the hanging of the screen from inside the window; but I find that it is desirable to provide a still cheaper hanger, and, furthermore, a hanger which will prevent the lifting of the screen when the hook or latch commonly used at the bottom of the screen is grasped to swing the screen outward. With my patented hanger it is possible to lift the screen vertically, even while the screen is in place against the blind-stops of the window-frame, and in this way screens are sometimes accidentally detached and allowed to fall upon the ground outside the building.

The particular object of this invention is to provide a hanger or support for half-size screens which shall possess all the advantages of the present patented article and which shall be so constructed that it cannot be detached from its pivot unless the screen bearing it is swung out beyond the point to which it is usually thrown when opened.

Another and particular object of my invention is to provide a safety screen-hanger that shall be wholly composed of wire and which may be quickly attached to a screen and window-frame.

My invention consists generally in a half-sized screen hanger or support having at one end a sharp right-angled spud to be driven into the screen-frame or with a ring through which a screw may be driven, which is provided with an intermediate gage-shoulder or offset, and which has at its upper end an open curl or eye, to be placed upon a suitable pivot, and the extreme end of which will normally lie beneath said pivot to engage the same when the hanger is raised.

My invention also consists in various constructions and combinations of parts, all as hereinafter described, and particularly pointed out in the claims.

The invention will be more readily understood by reference to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a vertical section of a window having a screen equipped with a hanger embodying my invention. Fig. 2 is a perspective view illustrating my novel hanger. Fig. 3 is a view like unto Fig. 1, showing the parts as they appear when the hanger is about to be placed upon or removed from the pivot. Fig. 4 is a side view of the hanger. Fig. 5 is a perspective view of the hanger with ring instead of spud at the bottom.

As shown in the drawings, 2 represents the window-frame, 3 and 4 the upper and lower sashes, and 5 the outer blind-stop, the width of which latter is exaggerated in the drawings. The frame 6 of the screen is of substantially the same height as the lower window-sash and normally rests against the outer side of the blind-stops 5 of the window. The gap between the top rail of the screen and the meeting-rail of the side 3 is closed by the strip 7, attached to the screen-frame and ex-

tending from blind-stop to blind-stop. The lower end of the screen is secured by a hook or latch 8. It will be understood that I employ two of the hangers shown, one at each side of the screen. The same are of identical construction, it being unnecessary to make the same right and left or opposite, as in the case of some other hangers. The hanger is made of a single piece of wire, which is preferably circular in cross-section, though flat or square wire may be used. The hanger is divided into upper and lower parts 8 and 9 by the gage portion or offset 10, bent at right angles to said lower portion 9. The lower end of the portion is formed into a sharp spud 11, which is at right angles to the portion 9 and extends oppositely with relation to the gage portion 10. The spud 11 is nearly as long as the screen-frame is thick and, if desired, may be long enough to be driven through and clenched upon the outside of the screen-frame. The lower end of the hanger may be bent to form the ring or eye 16 in place of the spud 11. The offset or gage portion 10 is of a length equal to one-half the width of the ordinary blind-stops in windows. Above the portion 10 the hanger is bent outwardly and is provided at its upper end with an inward curl or open eye 12, that terminates in the downwardly and outwardly turned end 13, which is approximately directly above the inner end of the offset 10. The hanger is attached to the screen by first placing the offset or gage portion 10 flush with the top of the screen or upon the top of the strip 7 and then driving the point or spud 11 into the vertical bar or side of the screen-frame or driving a screw through the ring or eye 16, upon the inner side thereof. The point or spud is sufficiently strong to carry the weight of the screen and yet is so slender that it may be driven into the wooden frame without danger of splitting the latter. The straight portion 9 lies against the inner side of the screen-frame and, if desired, may be sunk into the same, and the hanger is held upright by a small staple 14, which embraces the portion 9 of the hanger and is driven into the screen-frame. When equipped with two such hangers, the screen is ready to be hung, at which time the upper sash of the window is lowered. The screen is then set in place against the blind-stops, with its hangers standing parallel with said blind-stops. A common nail or screw is then driven through the eye or loop of each hanger, the nail in each case being placed at the top of the loop and in the middle of the blind-stop.

The screen is usually lifted slightly and when the nails have been driven the screen will hang therefrom and clear the window-sill. It will be noted that the pivot-nail is directly above the end 13 of the loop or eye and will engage with the nail when the screen is slightly lifted, thereby preventing the accidental disengagement of the hangers and screen from the pivot-nails. The relation of the loop of the hanger to the screen is such that the loop is drawn outward when the screen falls from the position shown in Fig. 3 to that shown in Fig. 1 against the blind-stop, thereby insuring the under engagement of the pivot-nail, as described. The screen when thus hung may be swung outwardly and when wide open may be easily lifted off the pivot-nail, as illustrated in Fig. 3. The outward bend of the upper portion of the hanger constitutes the same a convenient guide when the screen is being hung upon the pivot nails or pins. It is obvious that after the pins have been placed in the blind-stops the screen may either be hung or removed through the lower part of the window.

My hanger or support, though of very light weight, possesses ample strength and is adapted for use on half-sized screens of all kinds and weights, and, furthermore, is easy to attach to a screen and presents a good appearance.

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

1. The hanger for half-sized screens, having at one end a sharp, right-angled spud, to be driven into the screen-frame and having at the other end an oppositely-turned loop or eye that opens downwardly and terminates in an underlying end, 13, substantially as described.

2. The hanger for half-sized screens, comprising the lower portion 9 provided with a sharp, right-angled spud 11, the offset or gaged portion 10 extending from the opposite side of the portion 9 and the upper portion 8 provided with the open curl or eye that terminates in a downwardly-turned, underlying end 13, substantially as described.

3. The combination, of the window-screen, with the blind-stop, the pivot-pin provided in said stop, the hanger having a straight portion secured upon the inner side of the screen-frame and having a spud 11 driven thereinto and also provided with the inwardly-turned gage portion 10 and the upwardly-extending curved portion, terminating in the open loop or eye, having its end beneath said pivot-nail, to engage said nail when the screen-frame is raised, substantially as described.

4. The wire-screen hanger, comprising the straight portion 9 having a fastening portion at its end, the gage portion 10, the upper portion 8 and the open loop or eye 12, terminating in the underlying end 13, substantially as described.

In testimony whereof I have hereunto set my hand, this 1st day of June, 1903, at Chicago, Illinois, in the presence of two witnesses.

CALVIN ROWLAND.

Witnesses:

C. G. HAWLEY,

JOHN H. GARNSEY.