

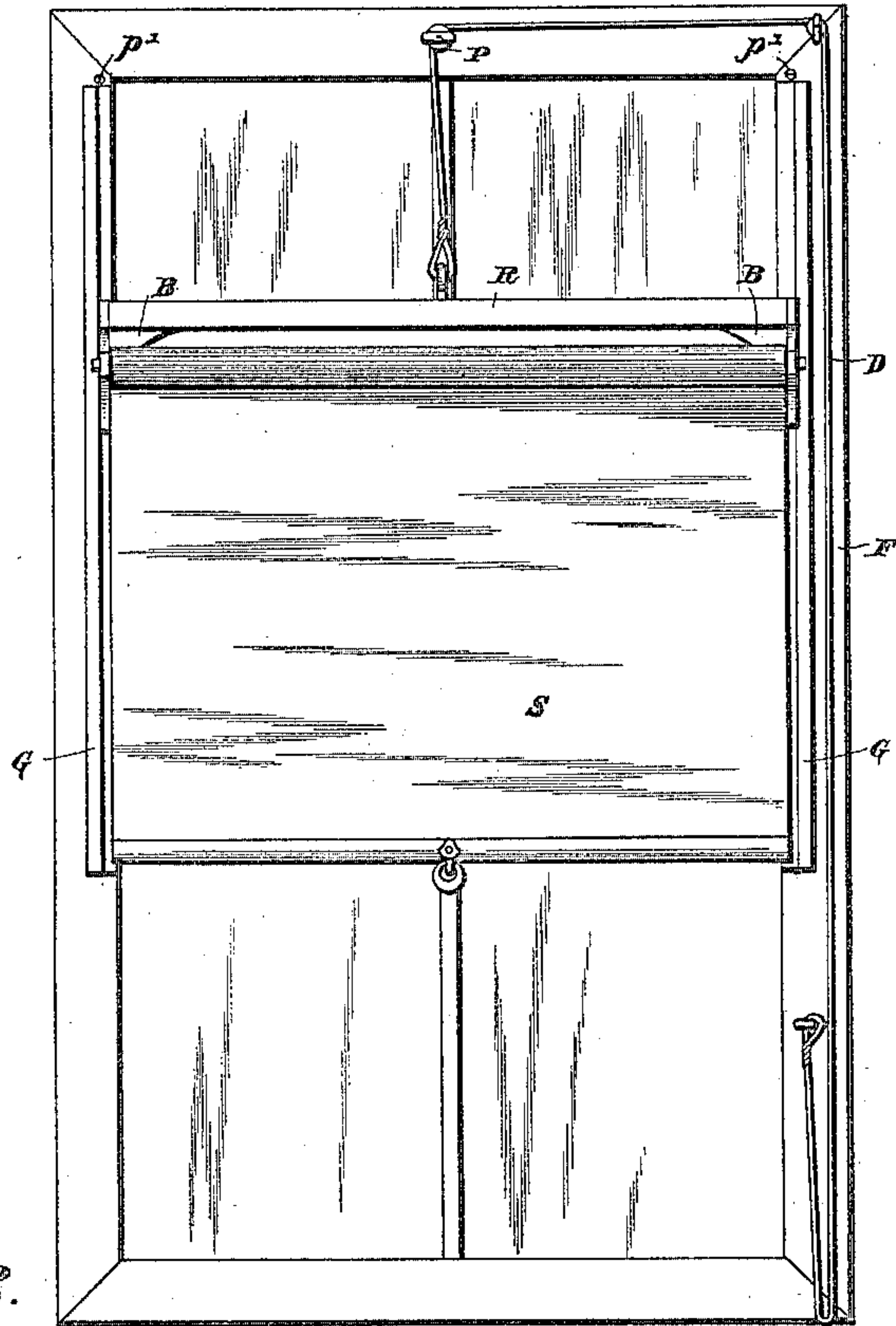
(No Model.)

R. W. JONES & H. C. WEBER.  
WINDOW SHADE.

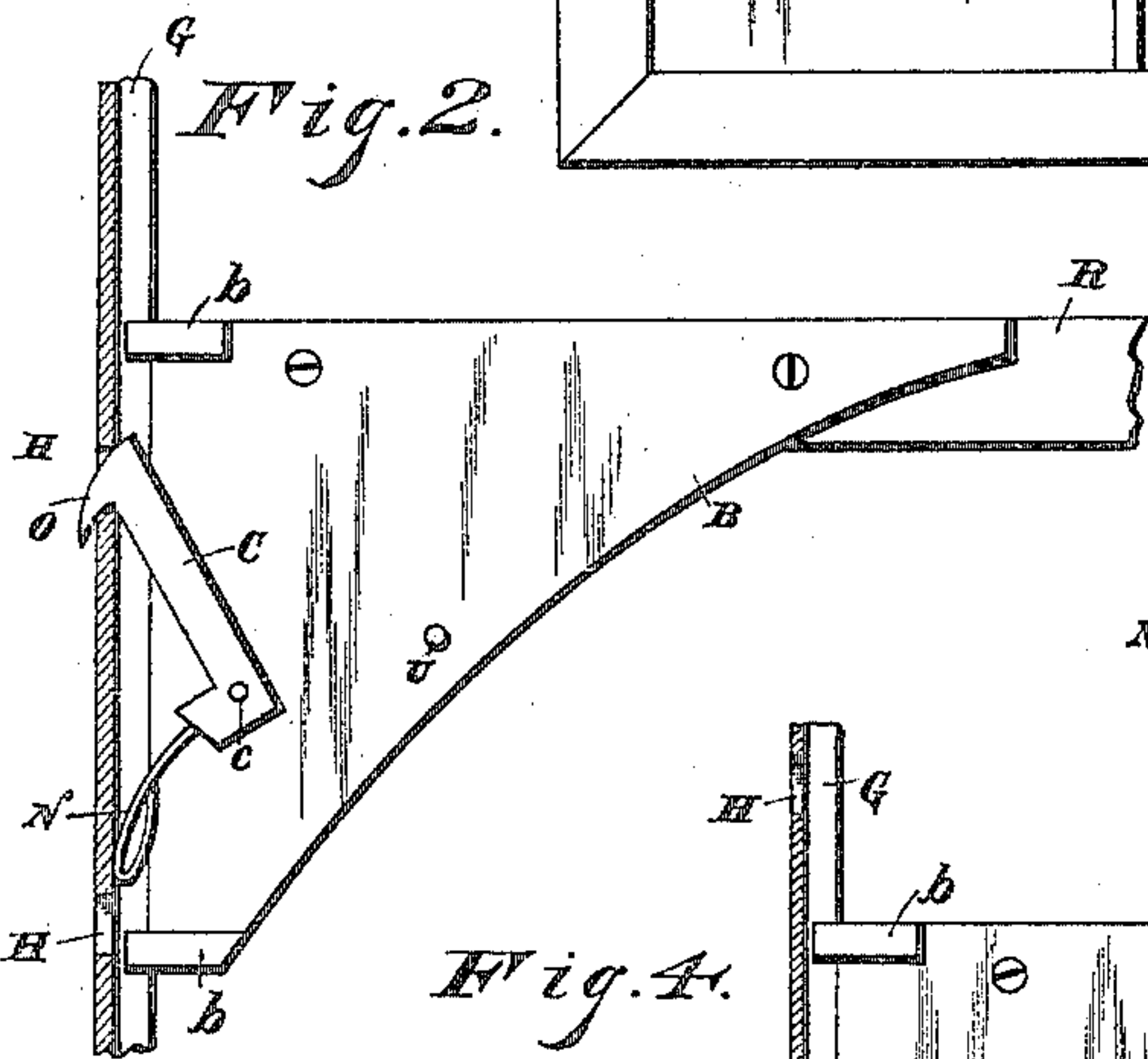
No. 446,456.

Patented Feb. 17, 1891.

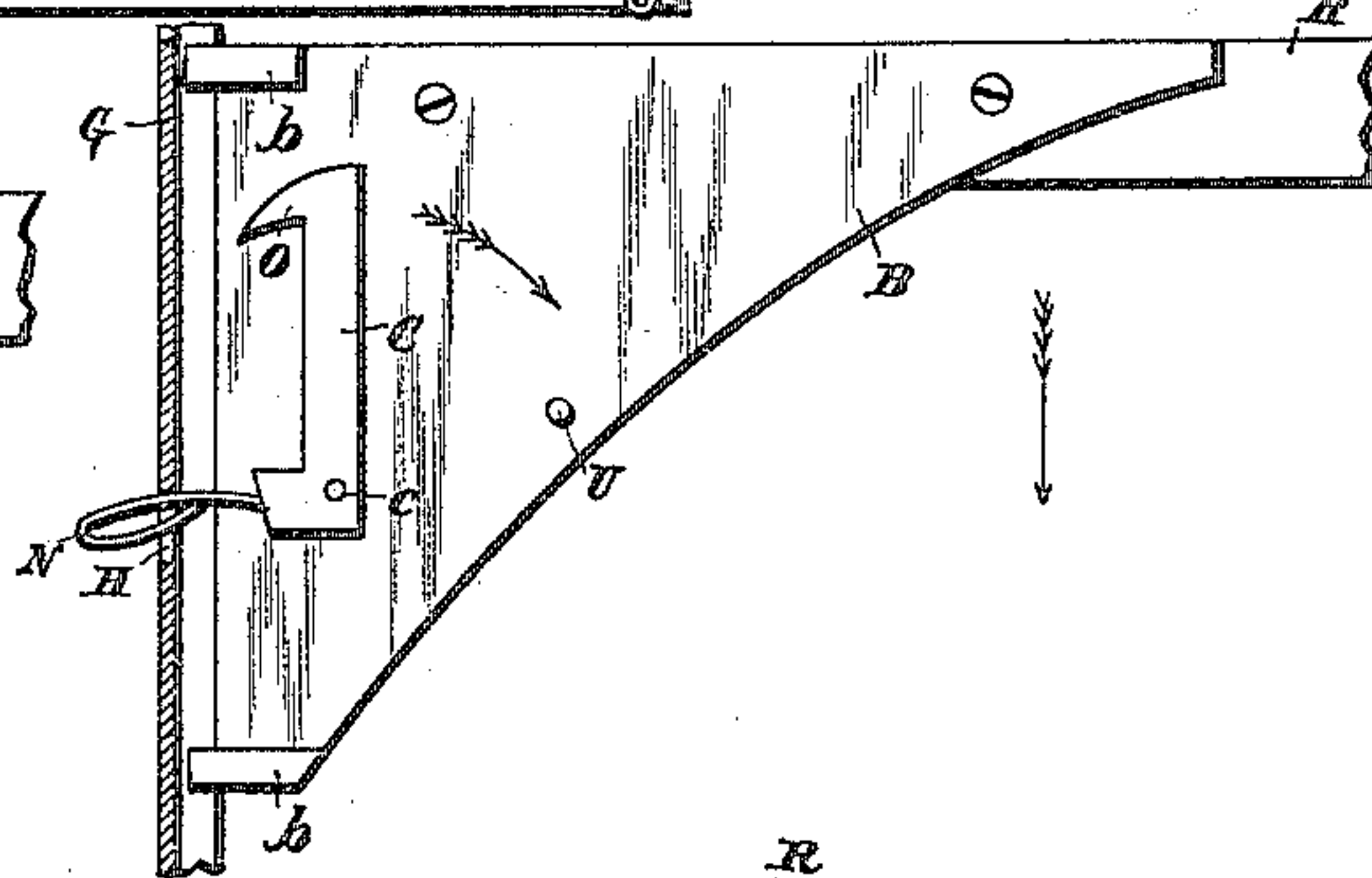
*Fig. 1.*



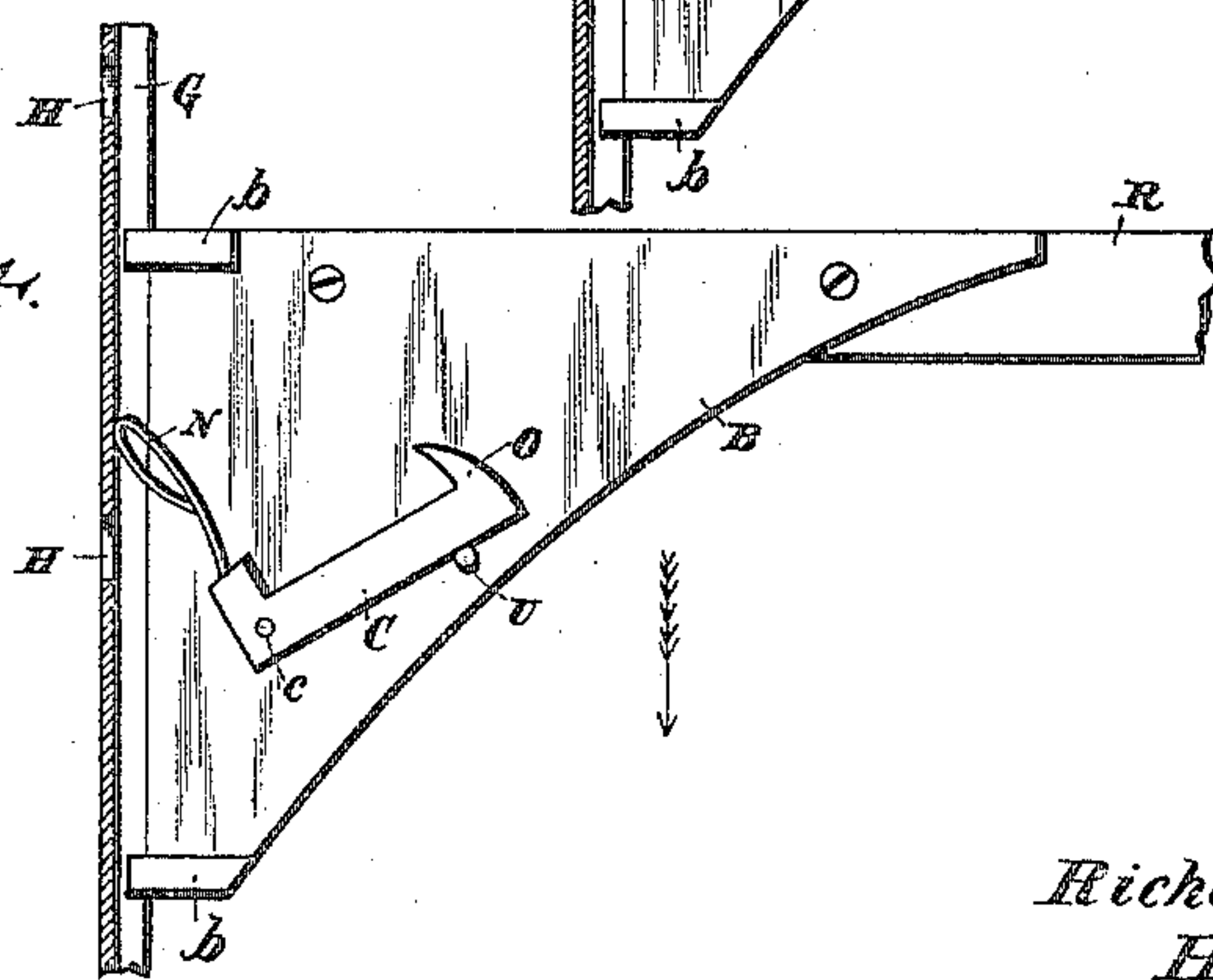
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

RICHARD W. JONES AND HENRI C. WEBER, OF NASHVILLE, TENNESSEE.

## WINDOW-SHADE.

SPECIFICATION forming part of Letters Patent No. 446,456, dated February 17, 1891.

Application filed December 28, 1889. Serial No. 335,226. (No model.)

*To all whom it may concern:*

Be it known that we, RICHARD W. JONES and HENRI C. WEBER, citizens of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Window-Shade, of which the following is a specification.

This invention relates to window-shades of that class in which the roller is adapted to be bodily adjusted higher or lower upon the window-frame, in addition to the raising and lowering of the curtain upon the roller; and the invention consists of a pair of guides, one connected to each side of the window-frame, a pair of brackets sliding in said guides and connected by a transverse bar, a (preferably spring) roller carried by said brackets and having a shade wound thereon, and certain peculiar catches connected to said brackets and adapted to engage holes in said guides to maintain the cross-bar at any desired height, all as will be hereinafter more fully described.

In the drawings hereto annexed, Figure 1 is a front elevation of a complete window with our attachment shown as connected thereto. Figs. 2, 3, and 4 are rear views of one of the brackets, with the catch thereon shown in different positions and the guide in section.

Referring by letter to the said drawings, F designates the window-frame.

G are guides secured to the face of each side piece of the frame and along the inner edge thereof, which guides are of U shape, in cross-section, and have holes H, as hereinafter described.

B are metallic brackets, of which there are two substantially similar, each having lugs b at its upper and lower end for sliding loosely within the guides G.

R is a cross-bar permanently secured to the brackets B, and connecting them in the manner shown in Fig. 1. The brackets preferably stand in a plane parallel with that of the window and at their outer edges are preferably bent forward and provided with eyes or bearings for the studs upon the ends of the roller of the shade S. In this way said roller is journaled in and supported by the brackets, and the latter are connected and may be raised and lowered together by the cross-bar R, and from the center of this cross-bar R a

cord D extends upwardly over a pulley P in the window-frame F, and is thence led outwardly and over other pulleys, if necessary, to a suitable position within reach of the operator.

Devices of the general character above described, except possibly as to the lugs b and the holes H, are common and well known, but we use the same in connection with the novel portion of this invention, which will now be described, and thereby produce an improved device of the general character mentioned and possessing advantages over the old form of window-curtains of this class, which will be hereinafter pointed out.

It is obvious that the shade S may be raised and lowered at will; and if a spring-roller be employed the shade will be wound thereon and unwound therefrom in a manner well understood. If now the operator desires to admit light or a draft of air at the upper part of the window, but to cover the lower part of the same with the shade or curtain, the cord D is grasped by the operator and the cross-bar R, and with it the roller at the top of the shade, are drawn to the desired height or lowered to the desired position. To retain this cross-bar at this position some means have been heretofore employed for securing the cord D, generally to the side of the window-frame; but we provide catches C, pivoted to the back of each bracket B, and we will now describe their operation.

Each catch C is composed of a body to which we have applied the letter C, and which is pivoted at c near one end to the back of the bracket B. The free end of this body is hooked, as shown at O, while the other end carries a spring N, projecting therefrom at about right angles to the body of the catch. A stud U in the rear face of the bracket prevents the body portion of the catch from dropping too far out of position. In Fig. 2 we have shown these catches in what we prefer to call their "normal position"—that is, with the hooked portion O engaging one of the holes H in the guide G—and in this position the brackets, cross-bar, and shade-roller are held at rest at any desired height. If now it is desired to raise the device, the cord D is grasped by the operator and pulled upon, and this draws the cross-bar R upward, the hooked



end O of the catches sliding first out of the respective holes with which they may be in engagement, and then past any subsequent holes in the guides G which they may encounter in their upward course, and finally, when the tension on the string is slightly relaxed, the cross-bar drops back a trifle and the hooks O engage the holes which are next below. If now it is desired to lower the cross-bar and the parts carried thereby, a further tension is imparted to the string D, by which the cross-bar is drawn up until the lower end of each spring stands opposite the hole, or the cross-bar may be drawn up to its highest possible position, when the upper lugs *b* on the brackets will abut against the upper end of the grooves in the guides G. The uppermost hole H in each of the guides is so placed that when the cross-bar is in this its highest position the lower end of each spring N will be just opposite the uppermost hole, and when the tension on the cord D is relaxed and the cross-bar begins its downward movement the free end of said springs N will enter said holes and the entire catch assume the position shown in Fig. 3. The cross-bar continuing to descend, the springs N are drawn completely out of said uppermost holes H, and their free ends slip by each of the holes as they pass them in their downward course. The position of the catches during this downward movement is shown in Fig. 4. When the cross-bar arrives at its lowermost position and the lower lugs *b* on each of the brackets strike the lower end of the grooves in the guides G, the free ends of these springs N stand opposite the lowermost of the holes H, and thus it will be seen that the first upward motion of the cross-bar returns the catches to what we have called their "normal positions," the springs N entering said lowermost holes and turning the catches to this position in the same manner as they entered the uppermost holes and throw them outwardly.

From the above description it will appear that when it is desired to raise the cross-bar the cord D is simply drawn upon, and whatever the position of said cross-bar may be this pull upon the cord will elevate it. If it is desired to lower the cross-bar, the cord D may first be drawn upon until said cross-bar is raised to its extreme highest limit, and then the tension may be relaxed and the cross-bar can be lowered to any point desired; or the cross-bar may be raised to any point where the free ends of the springs are just opposite the holes and then lowered again, the action being practically the same. The holes in the guides G may be such distances apart that the free ends O of the catches C will engage one pair of holes before the free ends of the springs N come opposite the pair of holes just below; but we prefer to space these holes a little greater distance apart.

We sometimes find it desirable to remove the cross-bar and the parts carried thereby from the window, and in order that this may

be done we leave one end of the groove open and insert in the wood-work of the window-frame, directly over such open end of the groove, a screw or pin P', to prevent the accidental and undesirable withdrawal of the brackets therefrom. When, however, it is desired to remove the cross-bar and its connections, these screws or pins are taken out, and the lugs *b* on the brackets B will then be permitted to pass freely out of the grooves in the guides G.

Having described our invention, what we claim is—

1. In a curtain-fixture, the combination, with the vertical guides along the sides of the window-frame, of the brackets B, carrying the shade-roller and shade, the cross-bar R, rigidly connecting said brackets, the cord D for raising and lowering the said cross-bar, and tumbling catches, substantially as described, for automatically engaging and disengaging the guides at any desired height, as set forth.

2. In a curtain-fixture, the vertical guides G, having holes H and located along the vertical sides of the window-frame, in combination with the connected brackets B, supporting the shade, lugs *b* on said brackets loosely engaging the grooves in said guides, and catches C, pivoted to said brackets and adapted to be automatically thrown into and out of engagement with said holes H when the brackets are raised and lowered, substantially as and in the manner set forth.

3. The vertical guides G, having holes H, in combination with the brackets B, sliding in said guide, and the catch C, said catch comprising a body portion pivoted to the bracket and a spring-arm projecting from said body portion approximately at right angles thereto, whereby the free end of the body portion will engage the guide when the bracket is rising and the free end of the arm will engage the guide when the bracket is descending, substantially as and for the purpose set forth.

4. The grooved guide G, having holes H at regular intervals throughout its length, in combination with the bracket B, sliding in said guide, and with the catch C, the latter comprising a body portion pivoted at one end to the bracket at *c* and having its free end hooked, as at O, and a spring-arm N, projecting from the body approximately at right angles thereto, the hook O and the end of the spring-arm N being a distance apart less or greater than the distance of two of said holes H, as and for the purpose set forth.

5. In a curtain-fixture, the shade S, the connected brackets B supporting said shade, a cord D for raising and lowering said brackets and shade bodily, and catches C, of approximately L shape, having hooks *o* at the ends of their upper arms and pivoted at their angles to said brackets, in combination with grooved guides G, extending along the vertical sides of the window-frame and provided with holes H at regular distances apart, the



uppermost hole being so located as to just engage the lower arm of the catches when the device is raised to its uppermost position and the lowermost hole to engage the same arm  
5 when the device is dropped to its lowermost position, such engagements, as well as engagements with intermediate holes, effecting the throwing of the catches into different positions, substantially as and for the purpose described.  
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In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

RICHARD W. JONES.  
HENRI C. WEBER.

Witnesses:

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MARCUS M. ROSS.