(No Model.) 2 Sheets—Sheet 1.

O. M. EDWARDS.

WINDOW.

No. 421,563. Patented Feb. 18, 1890.

Fig. 1.

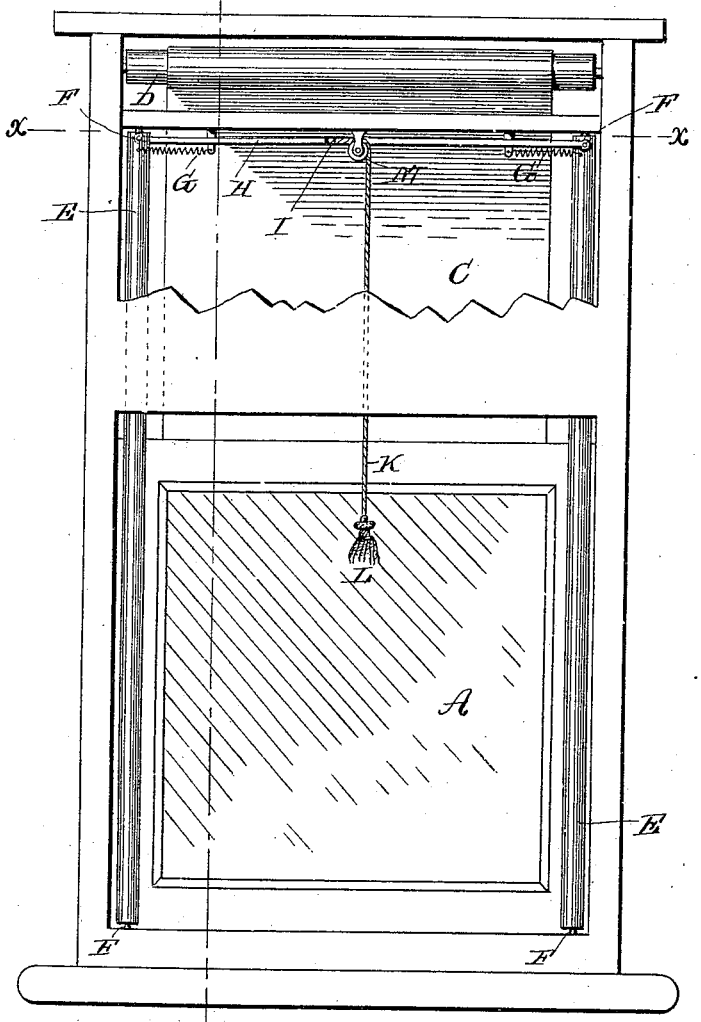


Fig. 2.

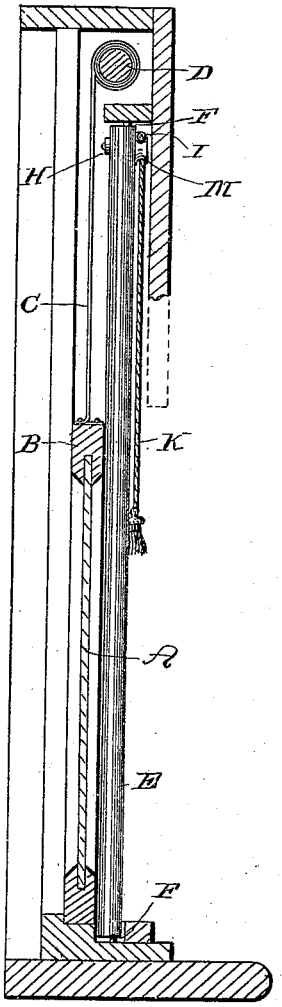
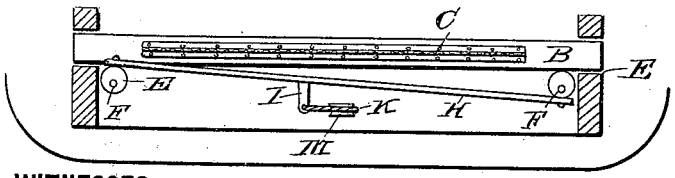


Fig. 3.



WITNESSES:

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L. H. May

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BY A. M. Pierce

ATTORNEY.

(No Model.) 2 Sheets—Sheet 2.

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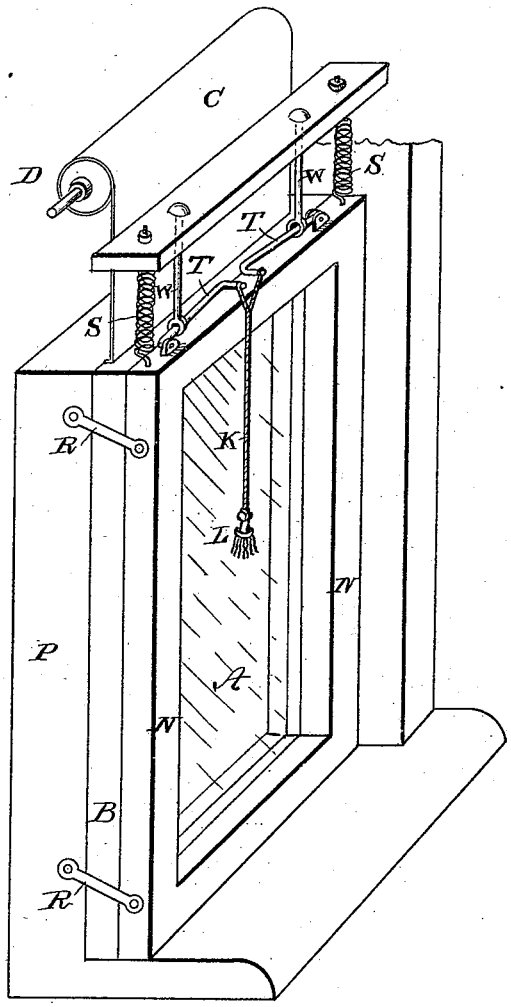
Fig. 4.



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UNITED STATES PATENT OFFICE.

OLIVER M. EDWARDS, OF JOHNSTOWN, NEW YORK.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 421,563, dated February 18, 1890.

Application filed August 24, 1889. Serial No. 321,863. (No model.)

To all whom it may concern:

Be it known that I, OLIVER M. EDWARDS, a citizen of the United States, and a resident of Johnstown, in the county of Fulton and State of New York, have invented certain new and useful Improvements in Windows, of which the following is a specification.

My invention relates especially to devices employed for holding window-sashes closed or raised, and to mechanism for automatically raising the sash, and has for its object the provision of means whereby a sash may be easily and quickly released when closed down and caused to automatically raise to any desired position without the expenditure of force or exertion, as heretofore required.

To attain the desired end, my invention consists, essentially, in the combination, with a sash connected with an actuating spring or springs or with weights, of a movable stop or stops adapted and arranged to hold the sash in any desired position; and my invention also involves certain other novel and useful combinations or arrangements of parts and peculiarities of construction and operation, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is a front elevation of my improved window. Fig. 2 is a vertical sectional view at line *y y* of Fig. 1. Fig. 3 is a cross-sectional view at line *x x* of Fig. 1. Fig. 4 is a perspective view of a modification.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

I have shown my device as applied to a railway-car; but it is obvious that it may be used with any kind or style of window.

A is the glass, and B the sash, of the window. The sash is arranged to slide in the usual manner, and is provided with a band C, secured to the top and passing over a spring-roller D, located above the sash. The spring should be of sufficient strength to overcome the weight of the sash when the same is free to move. I have shown a spring-roller for raising the sash; but it is obvious that weights may be employed, if desired, without departing from the spirit of my invention.

Referring to Figs. 1, 2, and 3, it will be observed that the usual stops are dispensed with, and in their stead two rollers or strips E, having rounded edges, are employed. These strips are supported by and arranged to turn upon eccentric bearings F, and are provided with springs G, arranged to normally hold the rollers against the sides of the sash. The strips E are connected together by a bar H, provided with an arm I, to which is attached an operating-cord K, passing over a pulley M and terminating at a tassel L.

The operation of my device is as follows: When the sash is down, as shown in Figs. 1 and 2, it is held in place by the rollers or side pieces. In order to raise the sash, it is only necessary to draw downward upon the cord K. This will cause the pieces E to turn upon their pivots, drawing said pieces away from the sash and permitting the sash to automatically rise to any desired position. In order to draw the sash downward, the cord is pulled and the sash pushed downward by the hand.

In the modification shown in Fig. 4 the window-stop N is shown as square, pressing against the sash upon all four sides. This stop is pivoted to the frame P by means of inclined bars R, and is normally held down by springs S. T T are bars pivoted to the top of the stop-frame N, passing through supports W and engaging with the manipulating-cord K. This device operates the same as that already described. By pulling the cord K the frame N is raised slightly and thrown outward through the medium of bars R, allowing the sash to automatically rise.

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

1. The combination, with a window-sash provided with means for automatically raising the same, of movable stops normally bearing against the sash, substantially as shown and described.

2. The combination, with a window-sash provided with means for automatically raising the same, of stops pivoted at the sides thereof and arranged to be withdrawn from or pressed against the sash, substantially as shown and described.

3. The combination, with a window-sash provided with means for automatically raising the same when released, of a cord connected with a movable stop mechanism arranged to be withdrawn from or pressed

against the edges of the sash, substantially as and for the uses and purposes shown and described.

4. The combination, with a window-sash provided with means for automatically raising the same, of stops eccentrically mounted at the sides thereof, substantially as shown and described.

Signed at Johnstown, in the county of Fulton and State of New York, this 20th day of August, A. D. 1889.

OLIVER M. EDWARDS.

Witnesses:
WM. H. YOUNG,
DONALD FRASER.