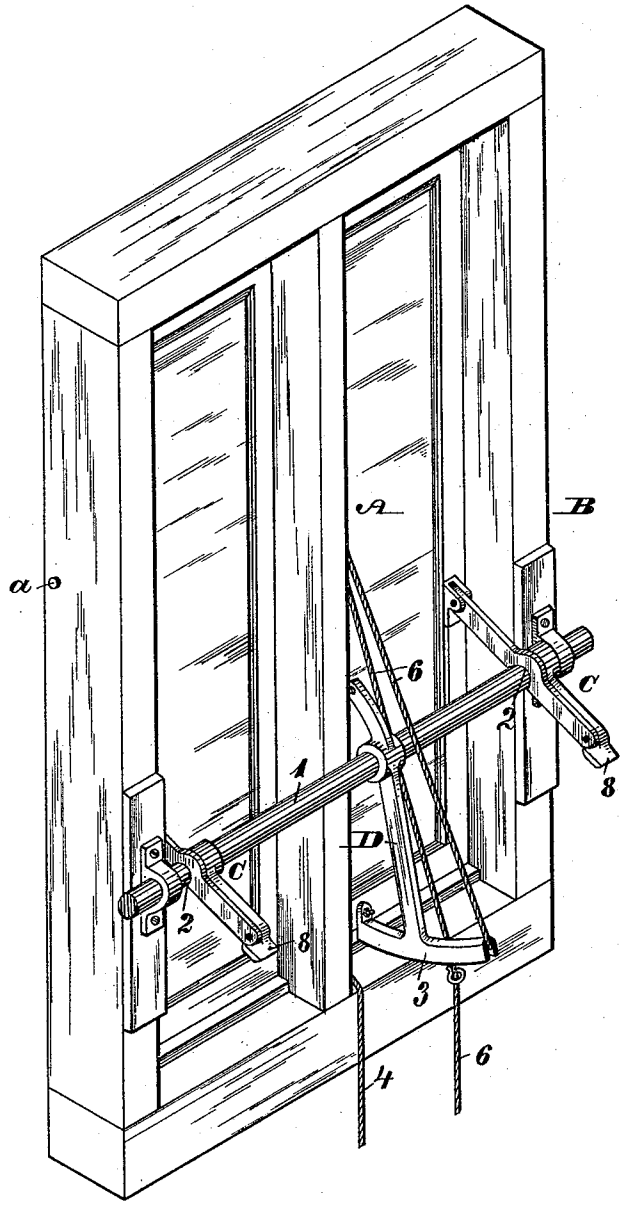
(No Model.) 2 Sheets—Sheet 1.

J. FINNEGAN.

TRANSOM LIFTER.

No. 396,357. Patented Jan. 15, 1889.

Fig. 1.



Witnesses.
Theo. Rollé.
James F. Kelly.

Inventor.
John Finnegan
By his Attorneys
Riederscheim & Kuhner

N. PETERS. Photo-Lithographer, Washington, D. C.

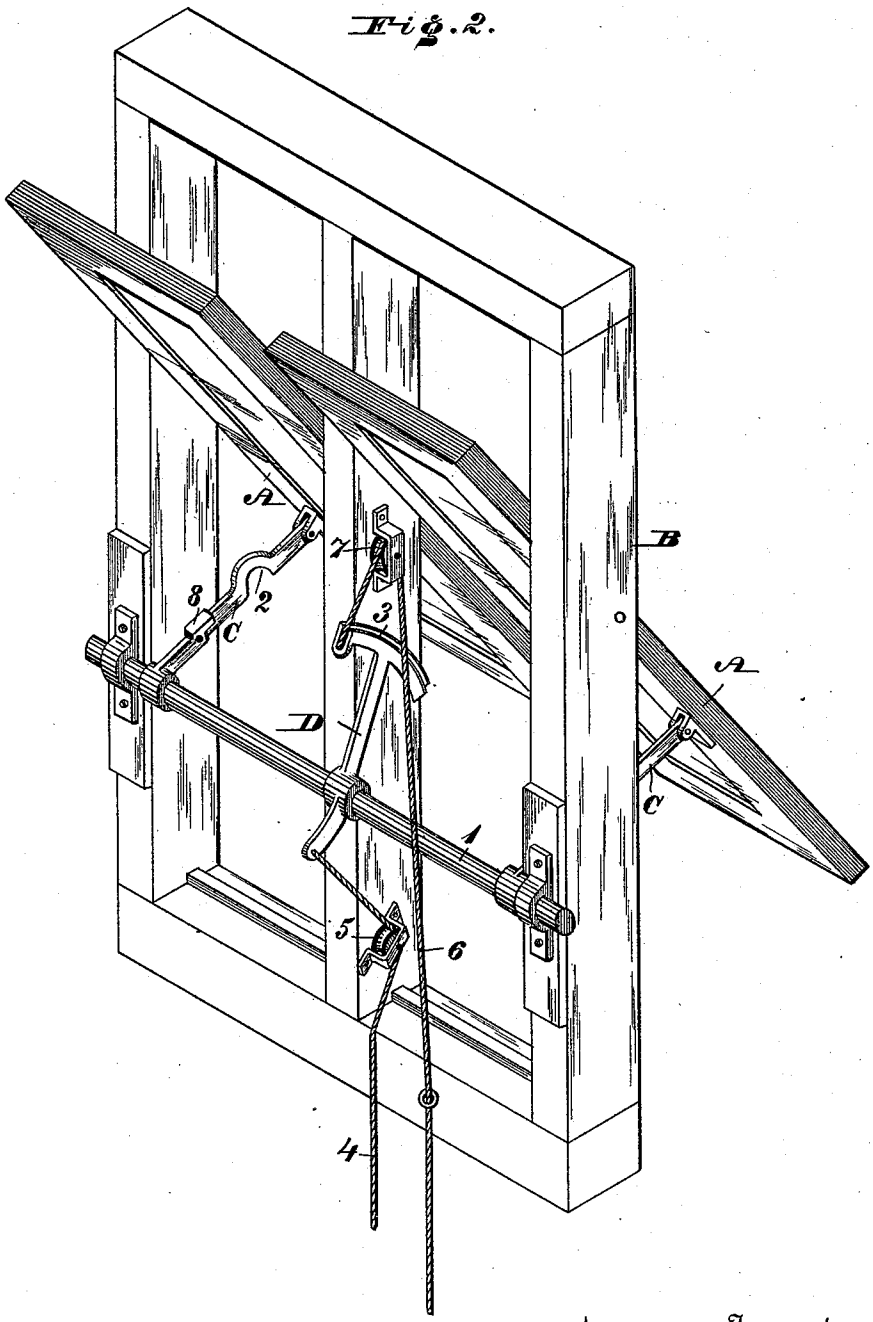
(No Model.) 2 Sheets—Sheet 2.

J. FINNEGAN.

TRANSOM LIFTER.

No. 396,357. Patented Jan. 15, 1889.

Fig. 2.



Witnesses
Theo. Rollé.
James F. Kelly.

Inventor
John Finnegan
By his Attorneys
Wiederhein & Kuhner

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN FINNEGAN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THOMAS DEVLIN & CO., OF SAME PLACE.

TRANSOM-LIFTER.

SPECIFICATION forming part of Letters Patent No. 396,357, dated January 15, 1889.

Application filed September 20, 1888. Serial No. 285,842. (No model.)

To all whom it may concern:

Be it known that I, JOHN FINNEGAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Ventilators, Transoms, &c., which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of means for conveniently opening and closing a ventilator, transom, &c., and retaining the same in either position, as will be hereinafter fully set forth.

Figures 1 and 2 represent perspective views of a ventilator or window embodying my invention.

Similar letters and numerals of reference indicate corresponding parts in the two figures.

Referring to the drawings, A represents a ventilator, shutter, transom, or other window, which is pivoted or hinged to the frame B, as at *a*. Mounted on said frame is a horizontal rock-shaft, 1, which has secured to it one limb of a toggle-lever, C, the other limb whereof is pivoted or hinged to the window A, whereby when said shaft is rotated the window will be thrown out or in, according to the direction of rotation of the shaft.

On the under side of what may be termed the "outer limb" of the toggle-lever C is a recess, 2, which, when the window is closed, embraces the shaft 1.

Connected with the shaft is a two-armed lever, D, one arm of which has the segment 3 of a pulley on the end thereof. Connected with the end of the other arm is a cord, 4, which passes around a pulley, 5, attached to the side of the frame B below the shaft 1.

Secured to the segment 3 and passing around the face thereof in a groove thereon is a cord, 6, which is passed around a pulley, 7, attached to the side of the frame above the shaft 1. When the toggle-lever is opened, it is prevented from improperly folding or closing in downward direction by means of a lip, 8, which is formed on the end of one lever of the toggle at the axis thereof and abuts against the adjacent end of the other lever as a stop. (See Fig. 2.)

The operation is as follows: The window is shown closed in Fig. 1, and in order to open the same the cord 6 is drawn, whereby the shaft 1 is rotated and the toggle-lever opens or unfolds, thus throwing out the window. The segment 3, which was below, is now above, and owing to the connection of the cord 6 with what may be denominated the "inner end" of said segment, the lever D is placed in oblique position, so as to be fully out of center, so that the return of the lever to its normal position can only be accomplished by rotating the shaft 1. Consequently the window is held in open or outward position, or, as it were, locked, without liability to be closed by gravity, force of wind, or efforts from without. When, however, the window is to be closed, the cord 4 is drawn, whereby the shaft is rotated in reverse direction and the top of the lever D moved inward or backward and downward. The toggle is also drawn in and caused to fold. As soon as the top of the lever passes the center, the window may complete its downward motion by gravity of itself and that of the segment end of the lever, and it seats itself against the frame in closed position. The toggle is now folded, and as the centers of the toggle, the rod, and the place of connection of the toggle with the window are in line, or nearly so, the window will be securely locked and opening from the outside prevented.

It is evident that a single window or many windows may be operated in the manner stated, two windows being shown in the present case.

I am aware that it is old to construct a device of this character having an oscillating shaft and a toggle-lever connected to the same and to a window; but I am not aware that the particular combination of parts as herein claimed is old, wherein pulleys secured to the side of the casing above and below the shaft are used in operating a lever connected to the shaft; neither is it common to employ an arm with a segment or projecting arm at its outer end, in combination with the shaft, which employment avoids the necessity of a large-sized pulley, and at the same time has the line of the direction of the power outside the line of the lever, which, as is readily seen, is of advantage.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

1. A transom-lifter consisting of an oscillating shaft, a toggle-lever having the lip 8 at the pivotal connection of its parts, and the recessed portion 2, said lever adapted to be pivotally connected to said shaft and a transom, the arm D, rigidly connected to said shaft and having a segment on one end, the pulleys 5 and 7, and the cords 4 and 6, said parts combined substantially as described.

2. The combination of a rocking shaft with a two-arm lever secured to said shaft, so as to extend radially therefrom peripherally-grooved, a segment at the outer end of one of its arms, the pulley 7 above said segment, the cord 6, secured to the segment and passing over said pulley 7, the pulley 5 below the rocking shaft, and the cord 4, secured to the other arm of the lever and passing through the said pulley 5, said parts being combined so as to operate or rock said shaft in opposite directions, substantially as described.

JOHN FINNEGAN.

Witnesses:
JOHN A. WIEDERSHEIM,
A. P. JENNINGS.