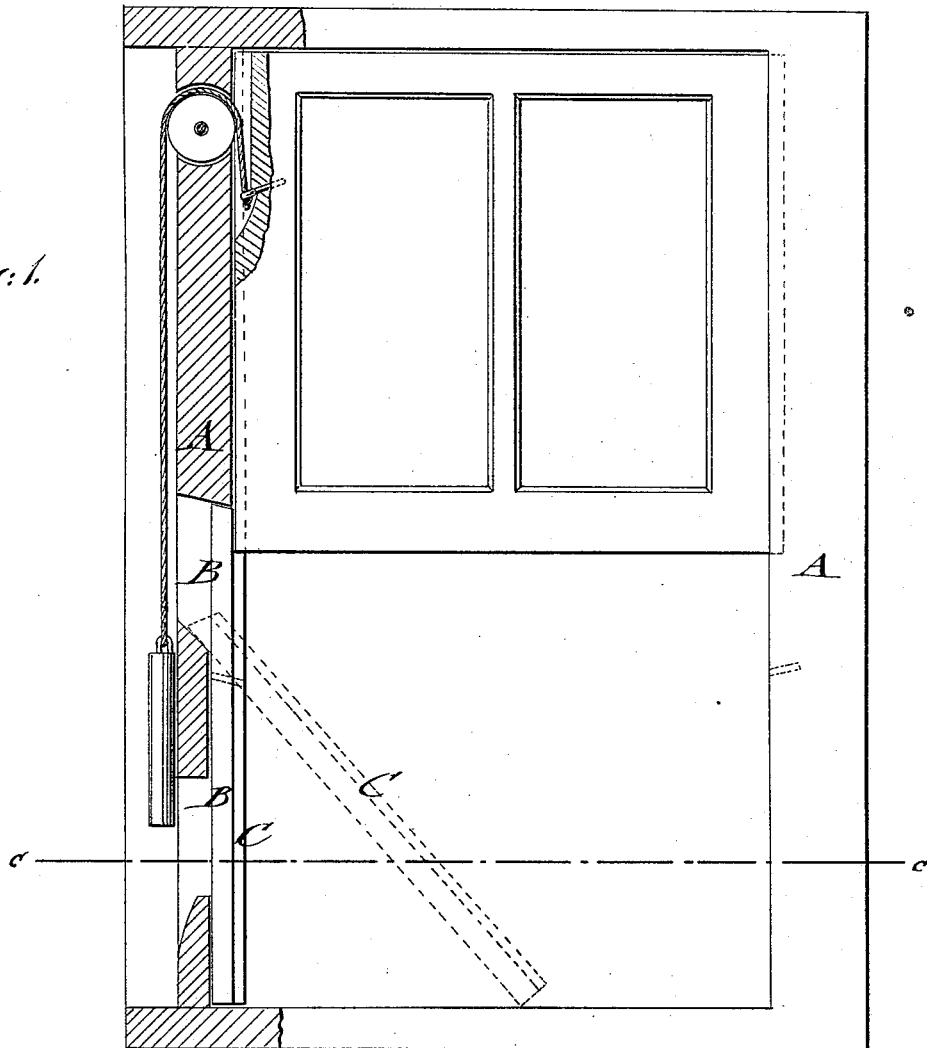


E. ROTH.  
Window-Frame.

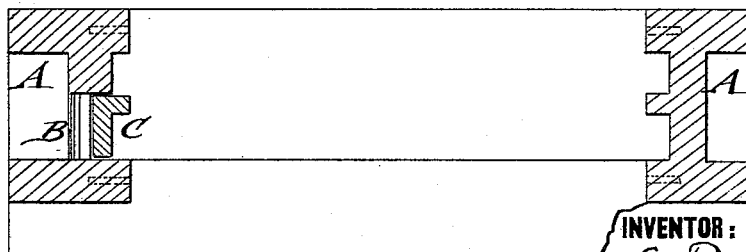
No. 165,510.

Patented July 13, 1875.

*Fig: 1.*



*Fig: 2.*



WITNESSES:

*Chas. Nida*  
*A. J. Terry*

INVENTOR:

*E. Roth*

BY

*Munnell*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

ELIAS ROTH, OF NEW OXFORD, PENNSYLVANIA.

## IMPROVEMENT IN WINDOW-FRAMES.

Specification forming part of Letters Patent No. **165,510**, dated July 13, 1875; application filed April 17, 1875.

*To all whom it may concern:*

Be it known that I, ELIAS ROTH, of New Oxford, Adams county, Pennsylvania, have invented a new and Improved Window-Frame, of which the following is a specification:

Figure 1 represents a sectional elevation of my improved window-frame; and Fig. 2 is a horizontal section of the same, on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention is an improvement upon the construction illustrated and described in Patent No. 157,224. In that case the side of the casing is recessed opposite the lower sash to receive a strip, which is removable. When the strip has been detached the lower sash may be readily taken out, and after that the upper sash.

My improvement relates to forming an opening in the casing at the upper end of the recess for the removable strip, whereby the removal of the latter is facilitated and other advantages attained.

In the drawing, A represents the window frame or casing, one stile of which is provided with a groove or recess, B, running from the window-sill upward to a point above the upper end of the lower sash. The upper part of the groove B is broken entirely through the stile, the connection of the main with the extension recess being preferably made at suitable upward inclination. A loose piece or section, C, fits the groove B, and may be fast-

ened in any suitable manner to fill the same, forming by its raised part the guide for the window-sashes. When the sashes are to be removed the lower sash is raised. The loose piece C is forced by pressure on its upper end into the opening, so as to throw the lower part of it out of the groove and impart an inclined position to piece C, as shown in Fig. 1, when it may be readily removed from the frame. The sash is then brought down, moved into the recess of the stile, and then slid out. The upper sash is removed in the same manner. If sashes with weighted cords and pulleys are used, the cords are applied to fastening-pins, as shown in Fig. 1, which are set into holes in the side of the sash-frames, grooves being cut in the upper parts of the sash-frames for the protection of the cords. On taking out the sashes the fastening-pins are drawn out and placed in suitable holes of the stile, to be readily available on replacing the sashes in the manner described, but in reversed order.

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

The combination of the detachable strip C and the frame or casing A, having an opening at the upper end of groove B, as shown and described, for the purpose specified.

ELIAS ROTH.

Witnesses:

G. W. EMMERT,  
C. H. EMMERT.