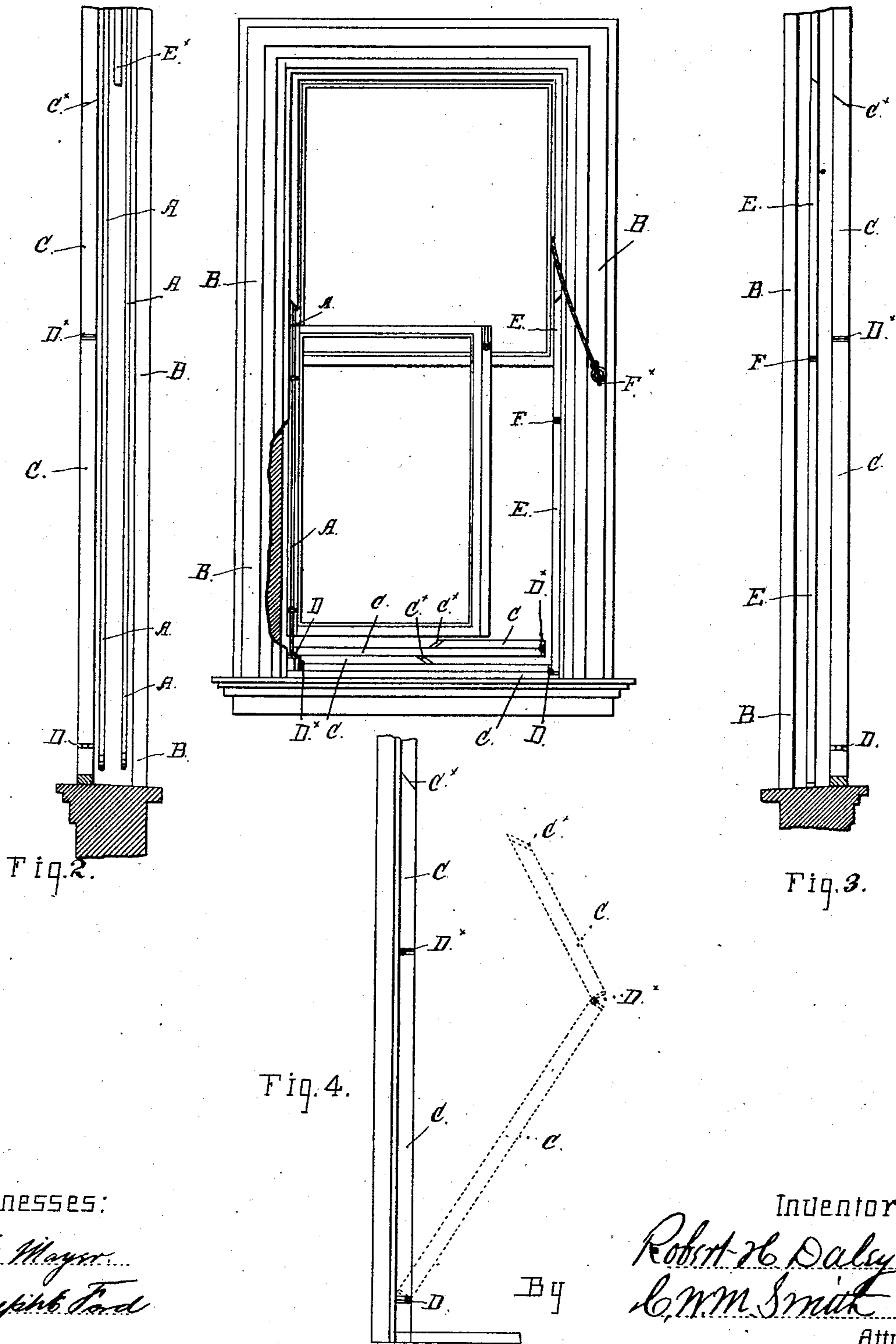


(No Model.)

R. H. DALEY,
WINDOW SASH AND FRAME.

No. 367,506.

Fig. 1. Patented Aug. 2, 1887.



Witnesses:

Wm. Mayser
Joseph Ford

Inventor:

Robert H. Daley
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UNITED STATES PATENT OFFICE.

ROBERT H. DALEY, OF SAN FRANCISCO, CALIFORNIA.

WINDOW SASH AND FRAME.

SPECIFICATION forming part of Letters Patent No. 367,506, dated August 2, 1887.

Application filed March 11, 1887. Serial No. 230,555. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. DALEY, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Window-Sashes and Window-Frames, of which the following is a specification.

The object of my invention is to provide a means whereby the upper and lower sashes of windows can be turned and swung into the apartment for the purpose of cleaning and ventilation.

To attain this end my invention consists in connecting to one side of the casing of the window-frame in the sashways a wire rod or runner with the rods passing through eyelets screwed into the edge of the sash, so that when either window is swung inward or backward it can be raised or lowered upon the rod or runner independent of the other window or sash, and when boxed or cased window-frames are employed with cords, weights, and pulleys such cords and weights will assist in operating the windows upon that side of the frame.

The stops and joints of the casing are severed or cut beveling and hinged so that they can be removed and folded up and permit the sashes to be swung backward upon their hinges or rods, all of which, together with other details of construction and operation, will be hereinafter fully described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a view in elevation of my window sash and frame with window swung backward. Fig. 2 is a view of left-hand side of window-frame in elevation. Fig. 3 is a view in elevation of right-hand side of window-frame. In Fig. 4 is shown a side view of stop at the left-hand side of frame or casing.

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

In carrying out my invention the rod or wires A A are connected within the runners of the sash-frame B B, usually at the left-hand side upon the inner side and in vertical line with the weight-cords of the window.

The inner left-hand corners of the sashes are stuck to form a half-round groove or ways for the rods, and within these ways are screwed eyelets at suitable distance apart, through which the wire rods pass and by which the

sashes are hinged to the rods. Both of the inner stops, C C, are sawed or cut diagonally, as at C^x C^x, and provided with hinges, as at D D^x, so that by drawing them sidewise they can be folded down one upon the other and permit the lower sash to be swung inward or backward upon the wire rod by slightly raising the sash to clear the folded stops, as shown. The dividing stops or beads E E^x are also cut or sawed diagonally and hinged by rule-joints F F, in the same manner as the inner stops above described, and these are folded down upon the window sill or cap in the same manner, so that the upper sash can be swung back upon its wire rod.

In practice both the inner stops, C C, are drawn forward and folded down one upon the other, then by raising the lower sash, so as to clear the folded stops, the window can be swung backward, so that the right-hand cord of this window can be removed from its hook in the sash and connected to a hook, F^x, on the face of the window-frame, thus leaving the sash suspended at the left-hand side by the rod and one weight-cord, in which position it may be swung farther backward for cleaning the glass.

In like manner the center stops or bends are drawn forward and folded down one upon the other when the upper sash is lowered and its right-hand weight-cord unhooked, leaving this sash suspended upon its rod and left-hand weight-cord in position for cleaning the glass.

By such a construction it will be seen that large and heavy windows can be safely and easily swung in their frames and cleaned upon the inside of the building to which they are connected.

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

The combination, with a hinged and sliding window-sash and its frame, of the inner stops, as C C, hinged, as at D D^x, and cut diagonally at C^x C^x, and the dividing stops E E^x, hinged at F F, and likewise cut diagonally, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

ROBERT H. DALEY. [L. S.]

Witnesses:

C. W. M. SMITH,
CHAS. E. KELLY.