

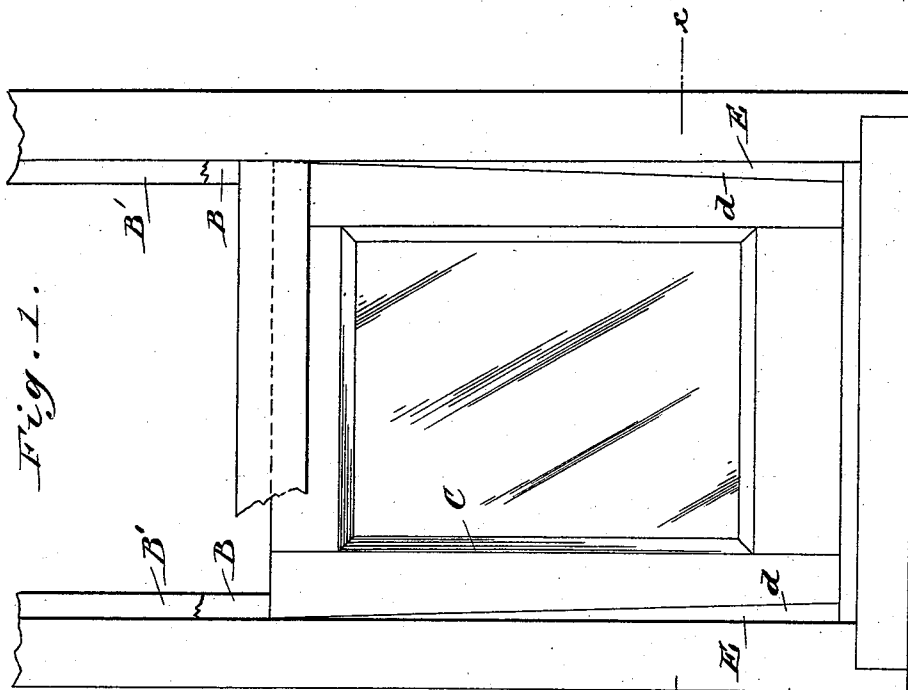
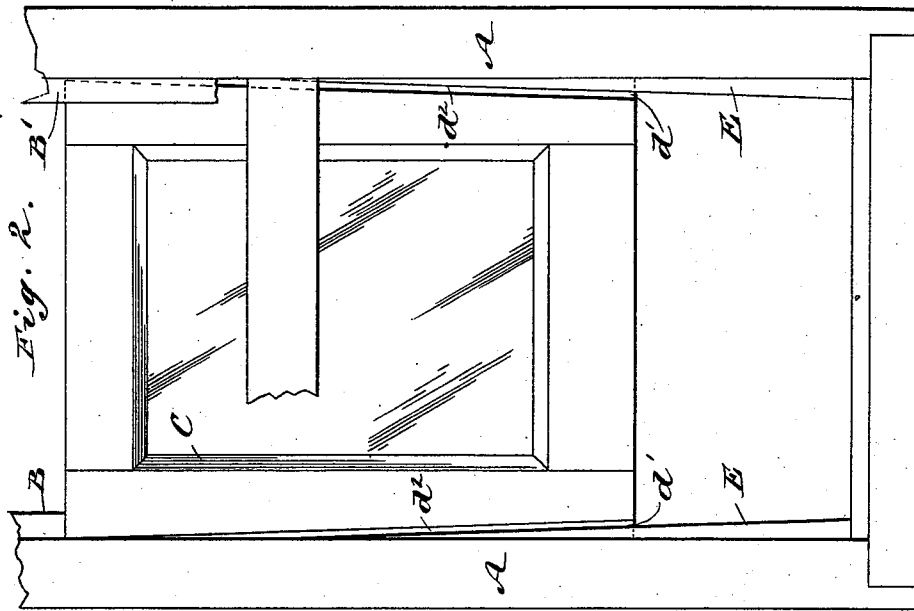
(No Model.)

2 Sheets—Sheet 1.

J. E. JONES.  
WINDOW FRAME AND SASH.

No. 376,959.

Patented Jan. 24, 1888.



WITNESSES:

*John H. Reamer*  
*W. Sedgwick*

INVENTOR:

*J. E. Jones*  
BY *Munn & Co*  
ATTORNEYS.

(No Model.)

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*Fig. 3.*

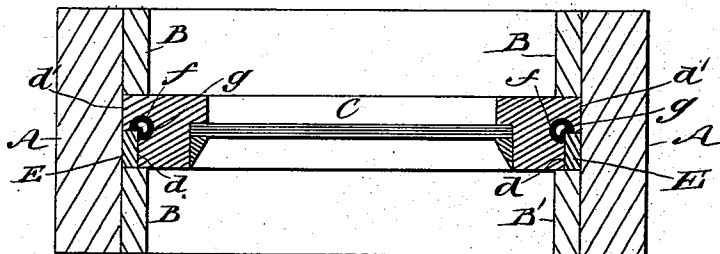
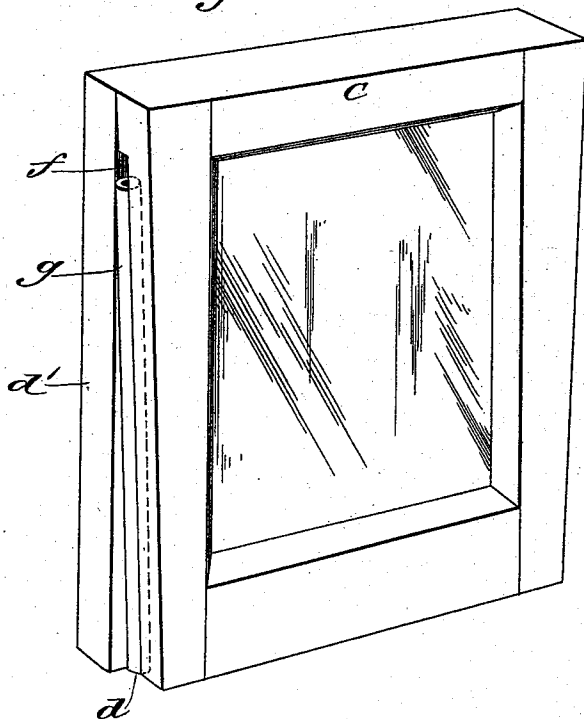


*Fig. 4.*



WITNESSES:  
*John W. Deemer*  
*to Sedgwick.*

INVENTOR:  
*J. E. Jones*  
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# UNITED STATES PATENT OFFICE.

JOHN E. JONES, OF NEW YORK, N. Y.

## WINDOW FRAME AND SASH.

SPECIFICATION forming part of Letters Patent No. 376,959, dated January 24, 1888.

Application filed March 23, 1887. Serial No. 232,095. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN E. JONES, of the city, county, and State of New York, have invented new and Improved Window Frames and Sashes, of which the following is a full, clear, and exact description.

The object of my invention is to provide a practical packed window frame and sash designed more particularly for railway-cars.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of my new window frame and sash, the latter shown in closed position and a portion of the frame and the front cleats being broken away. Fig. 2 is a similar view, the sash being shown partially elevated. Fig. 3 is a sectional plan view taken on the line *xx* of Fig. 1, and Fig. 4 is a perspective view of the window-sash.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

The vertical side pieces, *A A*, of the window-frame are provided upon their inner surfaces with the cleats or stop-beads *B B'*, between which the sash *C* is held. Next to the front beads, *B' B'*, are secured the small cleats *E E*, which are tapered from their lower ends to the top of the sash, as shown clearly in Figs. 1 and 2. The edges of the sash *C* have the tapered rabbets *d d* formed in them to fit snugly against the inclined surfaces of the cleats *E E* when the sash is closed. The sash *C* thus wedges slightly between the cleats *E* and forms a very tight joint. The edges or flanges *d' d'*, formed by the rabbets *d*, are straight to run in full contact throughout their whole length with the straight inner surfaces

of the vertical side frames, *A*, so that the sash will have a straight up-and-down movement. At the angles formed by the rabbets *d* the sash is bored to form the channels *ff*, in which are fitted the strips *g* of packing, preferably of soft rubber. These strips of packing act in contact with the edges of the tapered strips *E* when the sash is closed, as shown clearly in Fig. 3, so as to exclude all passage of air and dust into the car. When the sash is lifted, the first slight upward movement frees the packing and the sash from the inclined or tapering surface of the cleats *E*, so that there is practically no wear upon the packing in opening and closing the window, and, owing to the taper of the cleats *E* and the rabbets *d*, in raising the sash, a space, *d'*, is formed between the tapered edges of the rabbets and the cleats *A* and *E*, as shown, which furnishes a perfect clearance and escape for any dust that might get between the sash and the window-frame.

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

1. The window-sash *C*, formed at its edges with the straight surfaces *d'* and with the inclined rabbets *d*, facing the window-frame, in combination with tapering strips *E*, secured to the window-frame, substantially as described.

2. The sash *C*, formed at its outer edges with the straight surfaces *d'* and with the inclined rabbets *d*, and provided at the angle with the packing *g*, in combination with the tapering cleats *E*, secured to the window-frame, substantially as described.

JOHN E. JONES.

Witnesses:

H. A. WEST,  
J. F. ACKER, Jr.