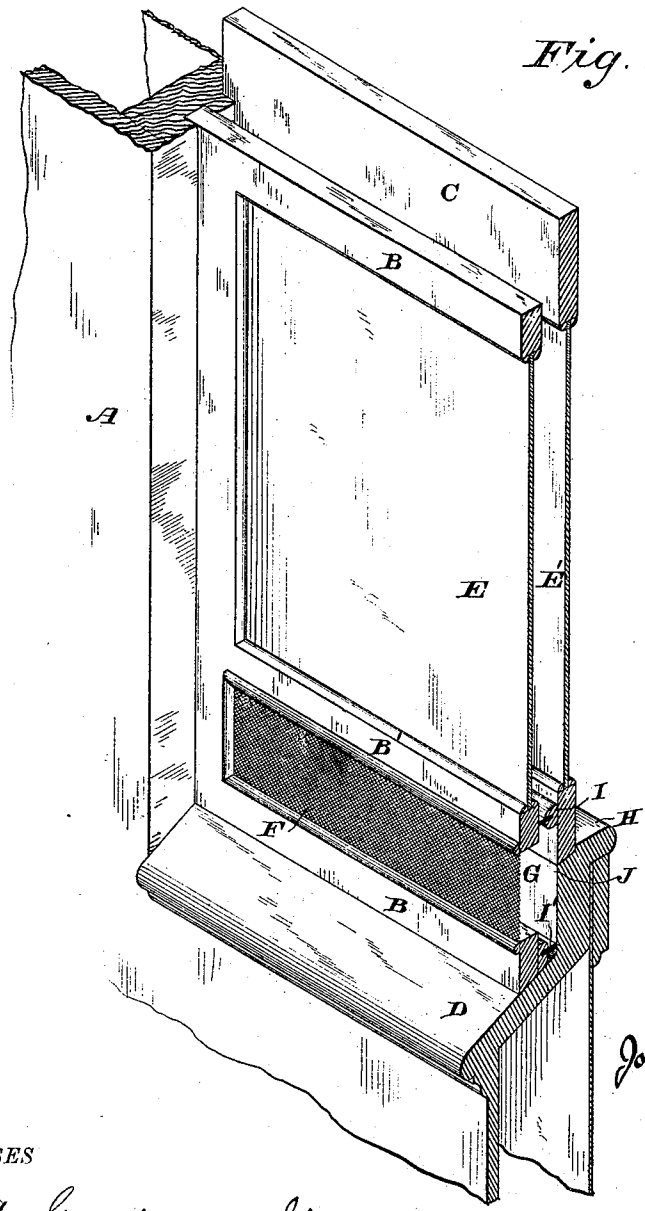
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J. M. FORBES.

VENTILATING WINDOW FOR RAILWAY CARS.

No. 251,426. Patented Dec. 27, 1881.

Fig. 1.



John M. Forbes

WITNESSES

Wm. A. Skinkle.

Geo W. Breck

INVENTOR

By his Attorneys

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

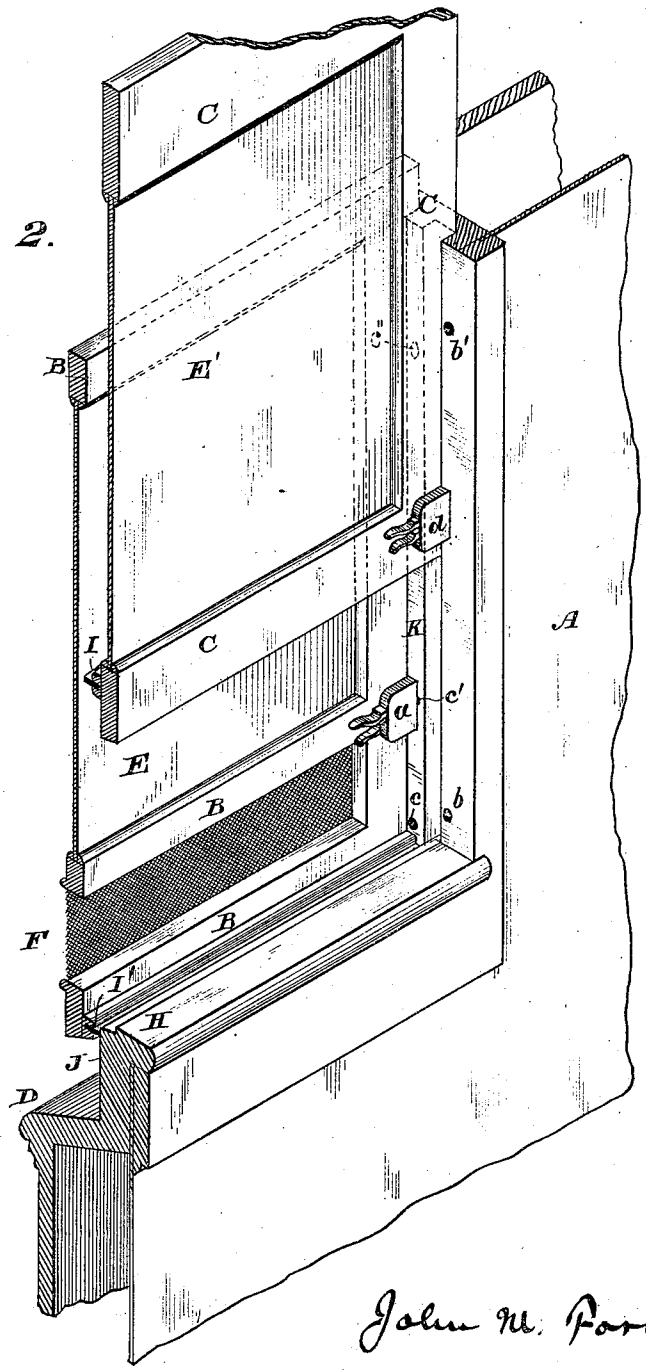
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Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN M. FORBES, OF MILTON, MASSACHUSETTS, ASSIGNOR TO THE CHICAGO, BURLINGTON AND QUINCY RAILROAD COMPANY, OF CHICAGO, ILL.

VENTILATING-WINDOW FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 251,426, dated December 27, 1881.

Application filed August 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN MURRAY FORBES, a citizen of the United States, residing at Milton, in the county of Norfolk and State of Massachusetts, have made a new and useful Improvement in Ventilating-Windows in Railway-Cars, of which the following is a specification.

The object of my invention is to provide a permanent, simple, and efficacious means of ventilating in railway-cars through the windows—which invention is applicable also to windows generally, wherever outer and inner sashes are used—without the introduction of dust and cinders, without obstructing the view from the window, without letting in the cold air during the severe season, and without preventing the window from being raised up out of the way altogether, if desired. I attain these objects by the mechanism illustrated in the accompanying drawings hereto annexed and forming a part of this specification, in which—

Figure I is a perspective view, partly in section, of my device, looking from without the car; and Fig. II is a perspective view of the same, partly in section, looking from within the car.

Similar letters refer to similar parts throughout both figures.

This mechanism, by which the objects above described are attained, consists, first, of a novel construction of a window with an outer and an inner sash, B and C, respectively, the inner sash, C, resting, when closed down, on a ledge or sill, H, and inclosing an ordinary pane of glass, E′, the outer sash, B, resting, when closed down, upon a ledge or sill, D, six or eight inches below the ledge or sill H, upon which the inner sash, C, rests, said outer sash, B, inclosing an ordinary pane of glass, E, extending from the upper bar of sash B to the partition-bar B′, which, when both sashes B and C are closed down, is directly opposite the top line of the lower bar of inner sash, C, and also inclosing a wire or other gauze pane or panel, F, extending from the bar B′ to the lower bar of sash B; so that by a reference to said drawings it may be seen that when both sashes B and C are closed down the wire or other gauze pane or panel F is not visible to the passenger within, does not obstruct his view, and inner sash, C, being guarded with a tight weather-strip attached to it at I, made of rubber or other substance, keeps out the cold in the severe season; but when the inner sash is raised a free ventilation and draft ensues through the wire or other gauze pane or panel F of the outer sash, B, blowing up through the space G, between F and the inner ledge or sill, H; and it will be seen by a further reference to Fig. I of said drawings that a weather-strip is attached to the lower bar of B at I′, so that while the gauze F admits air and ventilation the dust and cinders are excluded; second, by a novel construction upon the above-described device, and forming a part thereof, of a lock or catch, *a*, in outer sash, B, and stops or sockets *c*, *c′*, and *c″* in window-facing K, opposite to and working with lock or catch *a*, so that when the inner sash, C, is raised the outer sash, B, may be raised also, until its bottom point, guarded by weather-strip I′, is opposite to and rests on ledge or sill H at point J, in which position lock *a* and socket *c′* hold it, thus bringing F opposite the face of the passenger, so that the breeze will blow directly upon him, while the dust or cinders cannot penetrate through F or I′.

By use of the lock *a* and socket *c″* the outer sash, B, may be raised up out of the way altogether, if desired.

I do not claim, broadly, a window composed of two sashes, the outer one being provided with and inclosing glass or gauze and glass combined, and the inner one of glass, as I believe such to be old; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a window, of two sashes, an inner and an outer one, the former resting, when closed down, upon a ledge or sill, and the latter, when closed down, resting upon a ledge or sill of lower level, and being provided with or inclosing at the bottom only wire or other gauze, so that when the former is raised a draft of air will flow through the window without the introduction of dust and cinders, substantially as described.

2. In a window, an outer and an inner sash, the former consisting of glass at the top only, and wire or other gauze at the bottom only,

and the latter of glass, in combination with ledges or sills, locks, sockets, and weather-strips, substantially as described.

3. The combination of the sashes B and C, resting on ledges or sills D and H, with the weather-strips I and I′, the lock *a*, and sockets *c*, *c′*, and *c″*, respectively, said sashes being separated by a space, G, at the bottom, substantially as described.

JOHN MURRAY FORBES.

Witnesses:
H. M. CHAPMAN,
W. J. LADD.