G. Mann, Jr. & H. Hise,

Car Ventilator,

No. 54,185. Patented Apr. 24, 1866.

Fig. 1.

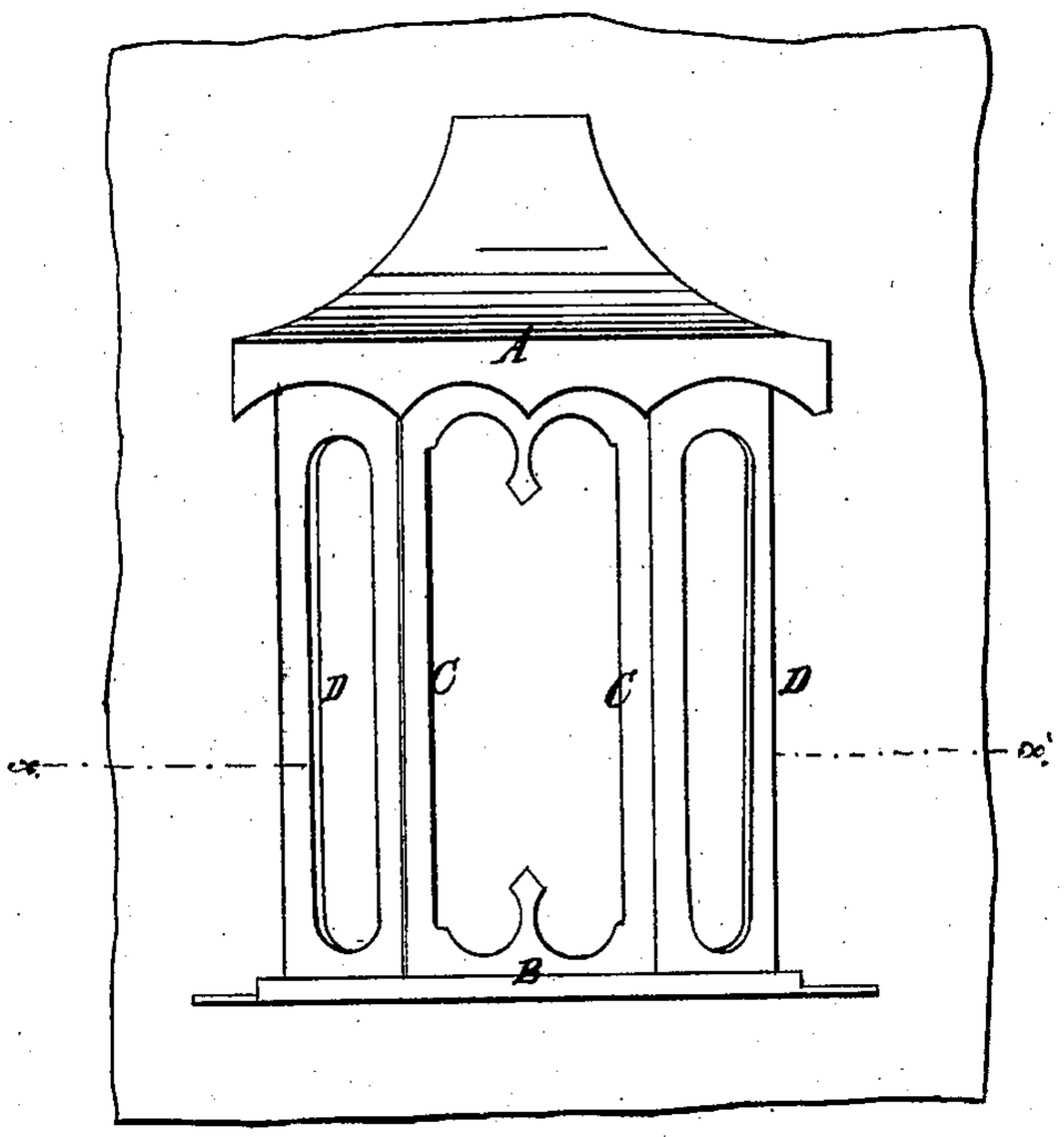
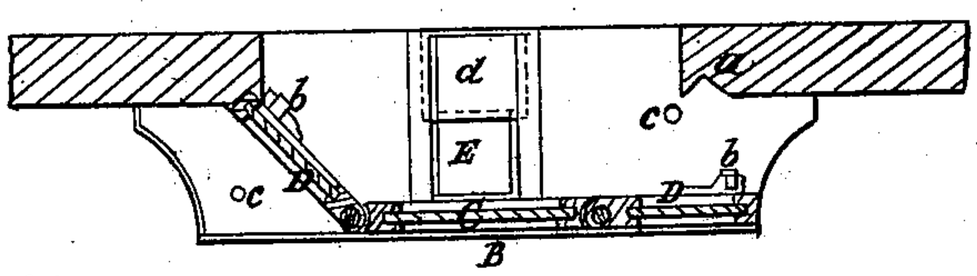


Fig. 2.



Witnesses.

Theo. Tusch.
Wm Trewin

Inventors.

Geo Mann
H. Hise
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Attys

UNITED STATES PATENT OFFICE.

GEO. MANN AND HENRY HISE, OF OTTAWA, ILLINOIS.

VENTILATING CAR-WINDOWS.

Specification forming part of Letters Patent No. **54,185**, dated April 24, 1866; antedated April 12, 1866.

To all whom it may concern:

Be it known that we, GEORGE MANN and HENRY HISE, of Ottawa, in the county of La Salle and State of Illinois, have invented a new and Improved Ventilating Car-Window; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of our car-window. Fig. 2 is a transverse section taken on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention relates to certain improvements in windows for cars, such as are generally known by the name of "bow-windows," the same comprising further improvements in the said class of windows to those on which an application for a patent is now pending in the name of George Mann, Jr.

Our present invention consists in a novel manner of arranging the valves or side windows and connecting them to the front or stationary part of the window, so that they may be easily opened and closed, and when in the latter position make a perfectly-tight window.

It also consists in making a hole in the lower plate of the window-frame and arranging over such hole a suitable slide or door for closing it, the said hole furnishing an easily-accessible place for the purpose of expectorating, as will be hereinafter described.

To enable others to understand our invention, we will proceed to describe it.

A B represent, respectively, the top and bottom plates of the window, which constitute the frame thereof. Both are attached to the body of the car in any suitable way. The top plate, A, is very ornamental in appearance, being in form very much like the article in the market known as "Italian awnings or shades." These two plates have flanges on their front edges, against which rests the front or stationary part, C, of the window. This consists of a plate or plates of glass set in a metallic frame, which insures the passenger a fair chance for gazing out at the objects he passes, as with an ordinary flat window.

D D are the valves or side windows. They consist of a frame containing a plate or plates of glass, and are of a width sufficient to close the opening between the front or stationary part, C, of the window and the side of the car. These valves or side windows are pivoted to the part C of the window or to the plate A B in any suitable way, and it is desirable that the form of the joint where they unite should be such as to be perfectly tight. In the present instance a groove is cut in the edge of the frame of the part C, and the edges of the valves chamfered off to correspond with it. This gives a neat and perfectly water-tight joint, and one not likely to catch dust or dirt, which might prevent it from working perfectly. A groove, *a*, is made in each side of the car-body for receiving the edges of the valves, so that they will fit tightly to the body of the car. Each of these valves is provided with slide-bolts *b b* inside, which serve to hold the said valves or side windows in either a closed or open state, they being arranged to slide into suitable holes or slots *c*, provided for the purpose in the plate B of the window-frame. These bolts can be easily reached by the hand and will hold the side windows in place without any liability of their getting out of place.

Through the bottom plate, B, of the window a hole, E, is made, and over it there is arranged a slide, *d*, for closing or opening it, the said slide being arranged to work in suitable guides, and a stop is provided to prevent its being drawn out too far. We do not confine ourselves to a slide especially for closing this hole, as a door or the like could be employed. The advantages of this provision in the bottom plate of the window for enabling a person to spit are apparent. It relieves one from straining the neck, and there is no possibility of the saliva being blown back into the car.

A car-window thus constructed enables the passenger to gaze out in different directions, and when the valves are both open a free ventilation is insured, and should the cinders or sparks of the locomotive be blown in the direction of the window the front valve may be closed and the rear one left open, and thus a good ventilation will be insured without the possibility of the cinders or smoke entering the car.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. Pivoting or otherwise securing the valves or side windows, D D, to the stationary or front part, C, of the window, substantially as specified.

2. Providing such valves or side windows with bolts *b*, for securing them in either a closed or open position, substantially as described.

3. Making a hole or opening, E, in the bottom plate, B, of the frame of the window, for the purposes herein specified.

4. The slide *d*, or its equivalent, in combination with the hole or opening E, for the purpose of closing the same, substantially as herein shown and described.

GEO. MANN.
HENRY HISE.

Witnesses:
JUSTUS HARRIS,
ARTHUR LOCKWOOD.