

G. Neilson.

Car Ventilator.

N^o 10,990.

Patented May 30, 1854.

Fig. 4.

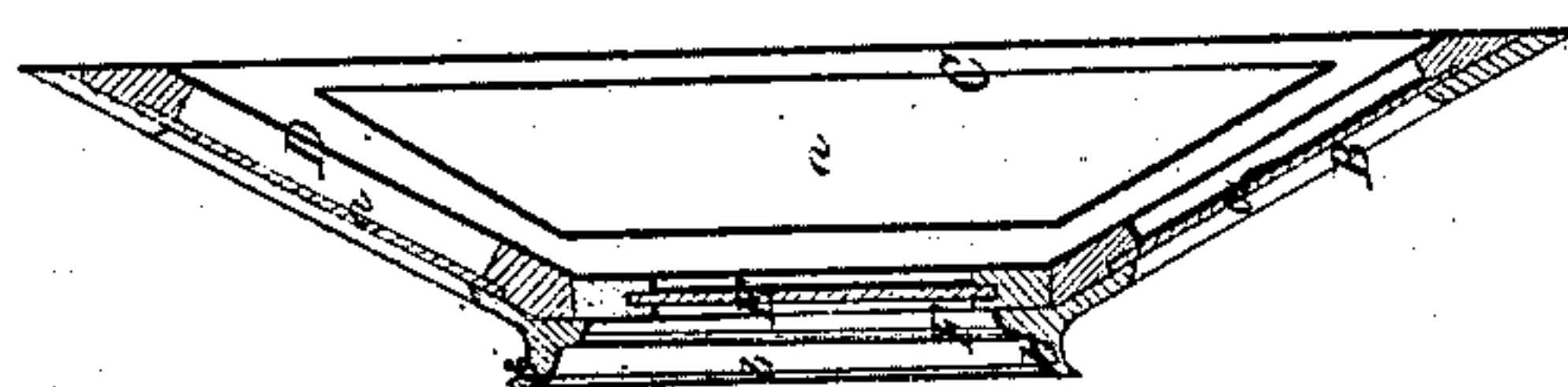


Fig. 3.

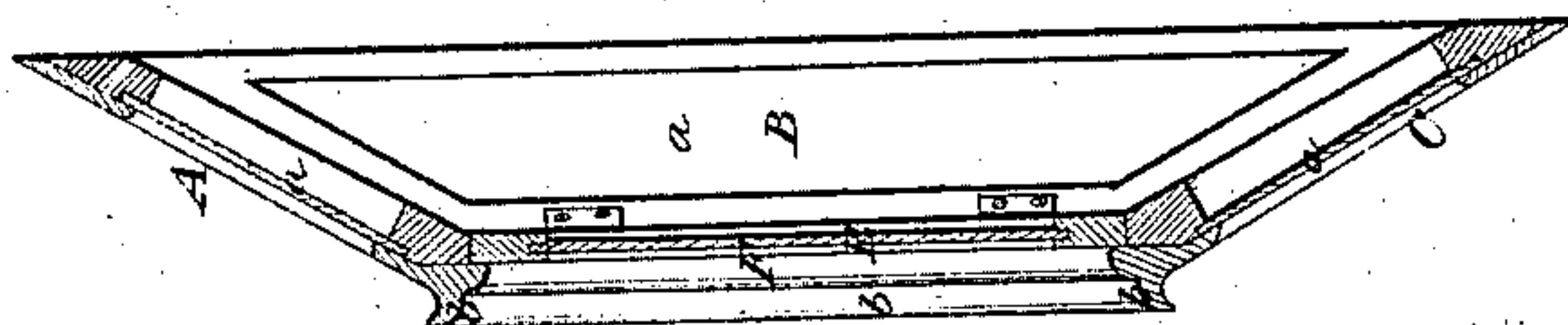


Fig. 2.

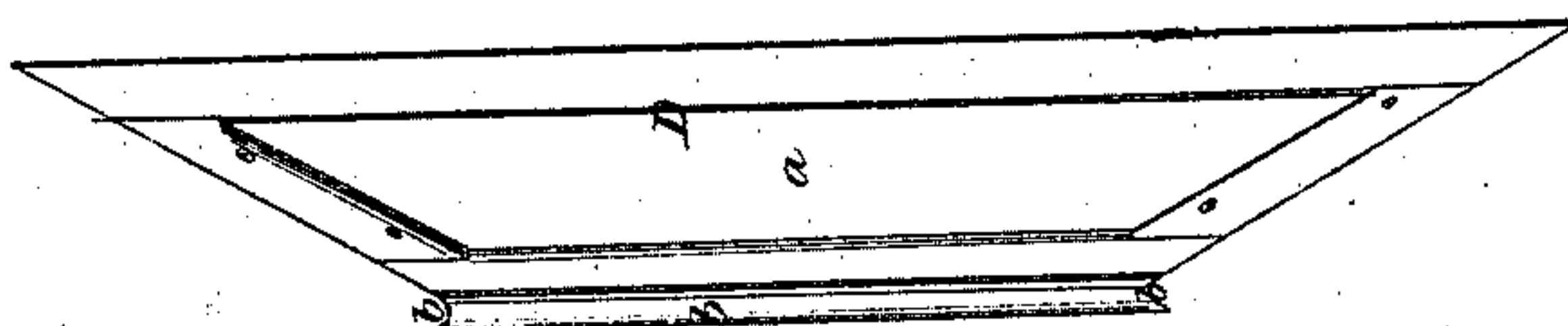
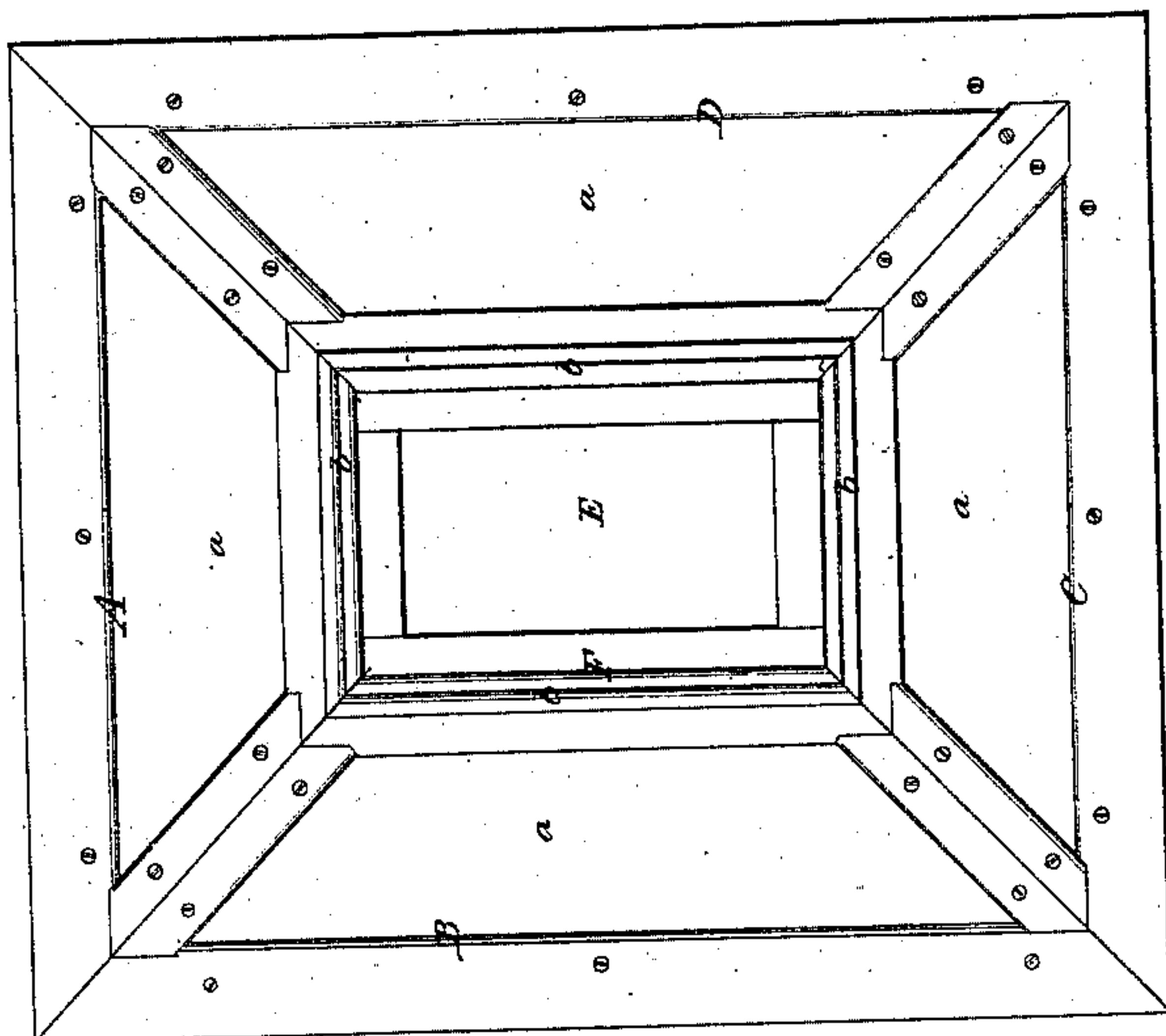


Fig. 1.



UNITED STATES PATENT OFFICE.

GEORGE NEILSON, OF BOSTON, MASSACHUSETTS.

VENTILATING-WINDOW FOR RAILROAD-CARS.

Specification forming part of Letters Patent No. 10,990, dated May 30, 1854; Reissued January 18, 1859, No. 649.

To all whom it may concern:

Be it known that I, GEORGE NEILSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Ventilator-Window for Railway-Cars; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1, denotes a front view; Fig. 2, a side view; Fig. 3, a vertical and central section, and Fig. 4 a horizontal and central section of a railway car ventilator window constructed in my improved manner.

I make a window frame which shall be in shape of a frustum of a quadrangular pyramid, the frame being composed of four trapezoidal frames A, B, C, D, in each of which a pane of glass *a*, is inserted. The inferior base of the window is made open, as seen at F, and has a closing window E, applied to it by means of hinges and so as to open inward. The said window opening is surrounded on its four sides and at the terminations of the lesser bases of the trapezoidal surfaces with a deflecting flanch or rim *b*, which is curved horizontally, as seen in Figs. 3 and 4, the object of the deflector being not only to prevent rain and dust from passing or being blown into the window opening, but it is to deflect aerial currents against the main current or body of air that may impinge on any one of the external inclined surfaces of the ventilator window. By such deflection these currents are made to pass across the window opening at a greater distance from it than they would were no deflector used. By passing by it at such greater distance the liability of dust to enter the window is greatly diminished. The ventilator window so constructed is made to project from the side of a railway carriage, and as the carriage moves on the railway track the ventilating window (provided its window E, is opened) will not only serve to ventilate the car, or induce outward currents, or cause the air in the car to rush

out of it, but it at the same time enables a person not only to see objects laterally of the track, but those which are in or nearly in line with the track. A window so made, instead of having its four trapezoidal sides or portions connected together, may have them made separate from each other and hinged to the car, so that they or any one of them may be opened if desirable. I do not however deem such a mode of constructing it as so advantageous as that exhibited in the drawings.

I am aware that for the purpose of ventilating railroad carriages inclined or hinged flaps have been used on the sides of the windows or window openings thereof. I am also aware that a curved guard has been made to extend down one side and over the top and under the bottom of a window thereof. I am also aware that a window has been made in two sashes, each hinged to one side of the window, so that one may be made to stand inclined to the plane of the other and to have an opening between them. I do not claim any such means of ventilating. I am also aware that pyramidal windows have been used on the tops of buildings. I am not aware that a ventilator window to be applied to a railway carriage has ever been constructed in the form of a frustum of a pyramid and provided with a window opening and a closing window or door composed in part or entirely of glass or other suitable transparent material. Nor am I aware that a ventilator window so made has had a deflecting rim or flanch applied entirely around its opening and for the purpose of shedding rain and deflecting currents of air from the inclined surfaces of the window.

I therefore claim—

1. The frusto-pyramidal ventilator window, as made of top, bottom and vertical sides or windows A, B, C, D, and with an opening F, and a closing window E, substantially as specified.

2. And I claim the arrangement of the deflector range entirely around the window opening and in respect to the deflecting sides

A, B, C, D, as specified, not intending to claim a deflector or guard as applied to a car window opening, but to limit my claim to its arrangement in four deflecting sides
5 or planes and entirely around the opening between them as set forth.

In testimony whereof I have hereto set

my signature this twenty-second day of September, A. D. 1853.

GEORGE NEILSON.

Witnesses:

R. H. EDDY,
THOMAS GRIFFIN.

[FIRST PRINTED 1913.]