Bayley & McCluskey,

Car Ventilator.

No. 79,541. Patented July 7, 1868.

Fig. 1.

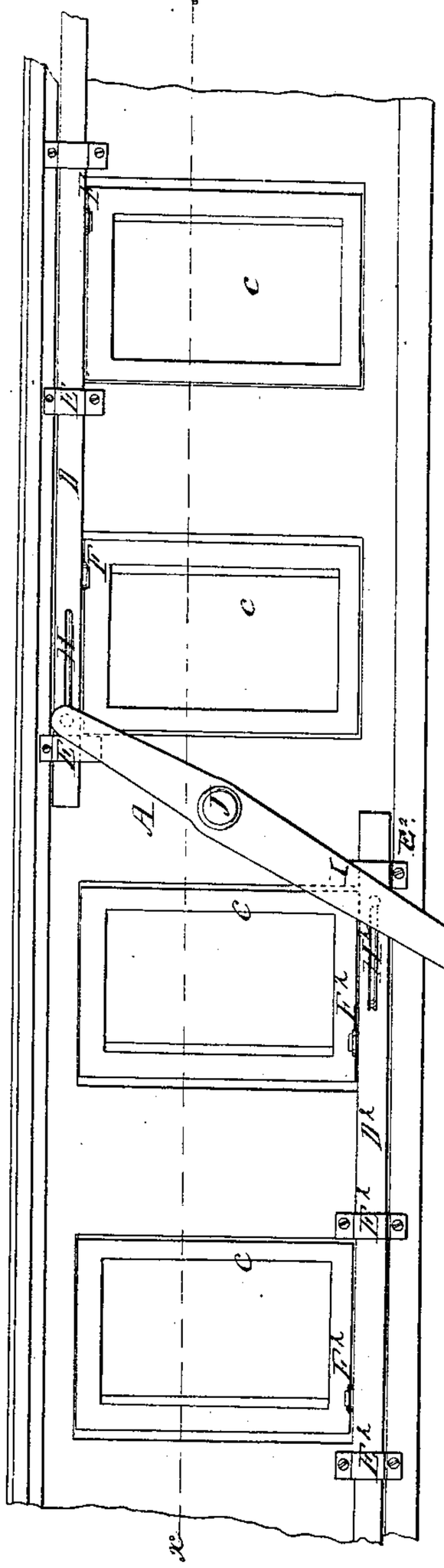
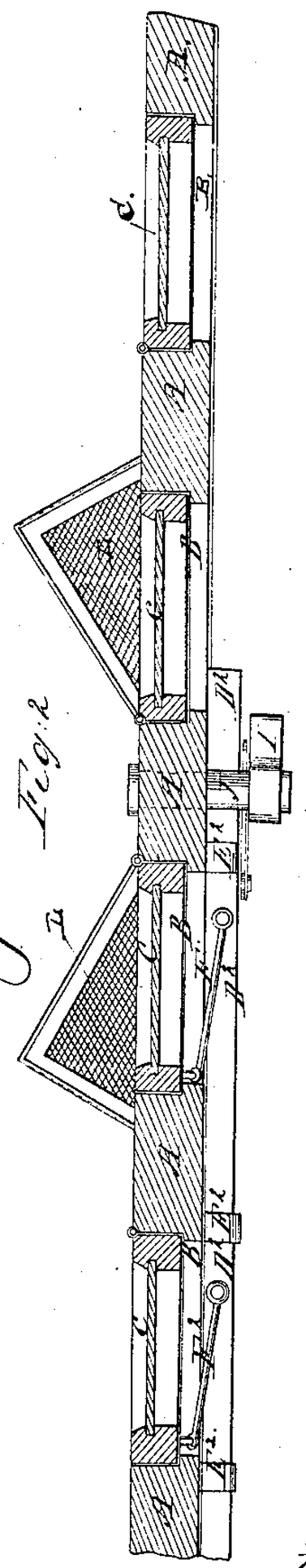


Fig. 2.



Witnesses.
Theo Tusche
Wm Dean Overdeff

Inventor
J. H. R. Bayley
J. McCluskey
Per Munn & Co
Attorneys

United States Patent Office.

G. W. R. BAYLEY AND JOHN McCLUSKEY, OF ALGIERS, LOUISIANA.

Letters Patent No. 79,541, *dated July* 7, 1868.

IMPROVEMENT IN RAILROAD-CAR VENTILATORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, G. W. R. BAYLEY and JOHN McCLUSKEY, of Algiers, Orleans parish, and State of Louisiana, have invented a new and useful Improvement in the "Hanging of Ventilating-Windows of Railroad-Cars, Steamboats, &c.;" and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates to an arrangement of mechanism for the more convenient opening or adjusting, at any desired angle, or closing by one motion, of all the raised-roof windows of railroad-cars, steamboats, &c.

In the accompanying plate of drawings, our improvement embraced by the present invention is illustrated—

Figure 1 being an elevation of a portion of a series of the upright-roof windows to a railroad-car, &c., and

Figure 2 a transverse horizontal section, taken in the plane of the line *x x*, fig. 1.

A, in the drawings, represents a portion of the upright framework to a railroad-car, steamboat, &c., in openings B of which the upright-roof windows C are hinged, being swung open to ventilate the interior of the cars.

In the drawings, these windows C are four in number, and are shown as arranged to open outwards, the two at one end to open in one and the same direction, and the two at the other end both in the opposite direction.

D D^2, two rods, the one arranged to move in guides E, along and above two of the windows, with which they are connected through the link or connecting-rods F, suitably hung therefrom, and the other rod, D^2, similarly arranged to move in guides E^2, below the other two windows, to which, by connecting-rods F^2, as explained for the rods F, they are connected, and then the two rods, D D^2, by and through connecting-pieces H H^2, respectively, to a common operating-lever, I, at equal distances from its centre or fulcrum-pin J, which lever I is arranged in a vertical position, and projects below the roof-windows inside of the cars a sufficient distance for being operated with the hands.

By moving the lever I, the windows will be either more or less opened or closed, as the case may be, two in one direction and the other two in the opposite direction, as is obvious without any further explanation.

The sliding bar or bars can be secured to the sides of the raised roof, either above or below the windows, or both above and below them, in suitable caps or guides, which will allow the bar or bars to be moved forward and back in the direction of their length.

These bars are to extend past all the windows on one side, or from the centre to the ends, both ways, or in case of the raised roof of steamboats, in sections of any desired length. And each window is to be connected with the proper sliding rod by means of connecting-rods, such as described; the length of the connecting-rod being such as to open the window to the extent desired.

As will be seen by the drawings, the arrangement is for opening the windows each way from the centre, in order to admit fresh air from or through the windows in the front half of the raised roof, and to allow for the escape outwards of the foul or heated air through the windows of the rear half of the raised roof.

By this arrangement the windows may be opened alternately forwards and backwards, first one forwards, the next backwards, and so on; or they may be pivoted at the middle, either vertically or horizontally, and all be opened at will either way, alternately, or, by means of a shaft extending from one side to the other of the raised roof, one lever can be made to operate the sliding bars and windows on both sides of the car or boat, &c., at once.

In the drawings, a wire-netting screen, L, is shown as applied to the windows, to prevent sparks, cinders, dust, &c., from entering the car or boat through the windows when open.

We are aware of the patent granted to M. C. Andrews, the application for which was filed August 12, 1867, but as this forms no part of our invention, we do not, therefore, claim it.

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

The arrangement of the connecting-rods D and D^2 with the connecting-rods F F^2, forming a series of operating-mechanism for opening and closing the windows, in the manner and for the purposes described.

G. W. R. BAYLEY.
JOHN McCLUSKEY.

Witnesses:

ISAAC SAMUELS,
P. J. HUDER.