

DANIEL C. JUSTISON.

Improvement in Railroad Car Ventilators.

No. 120,980.

Patented Nov. 14, 1871.

Fig. 1.

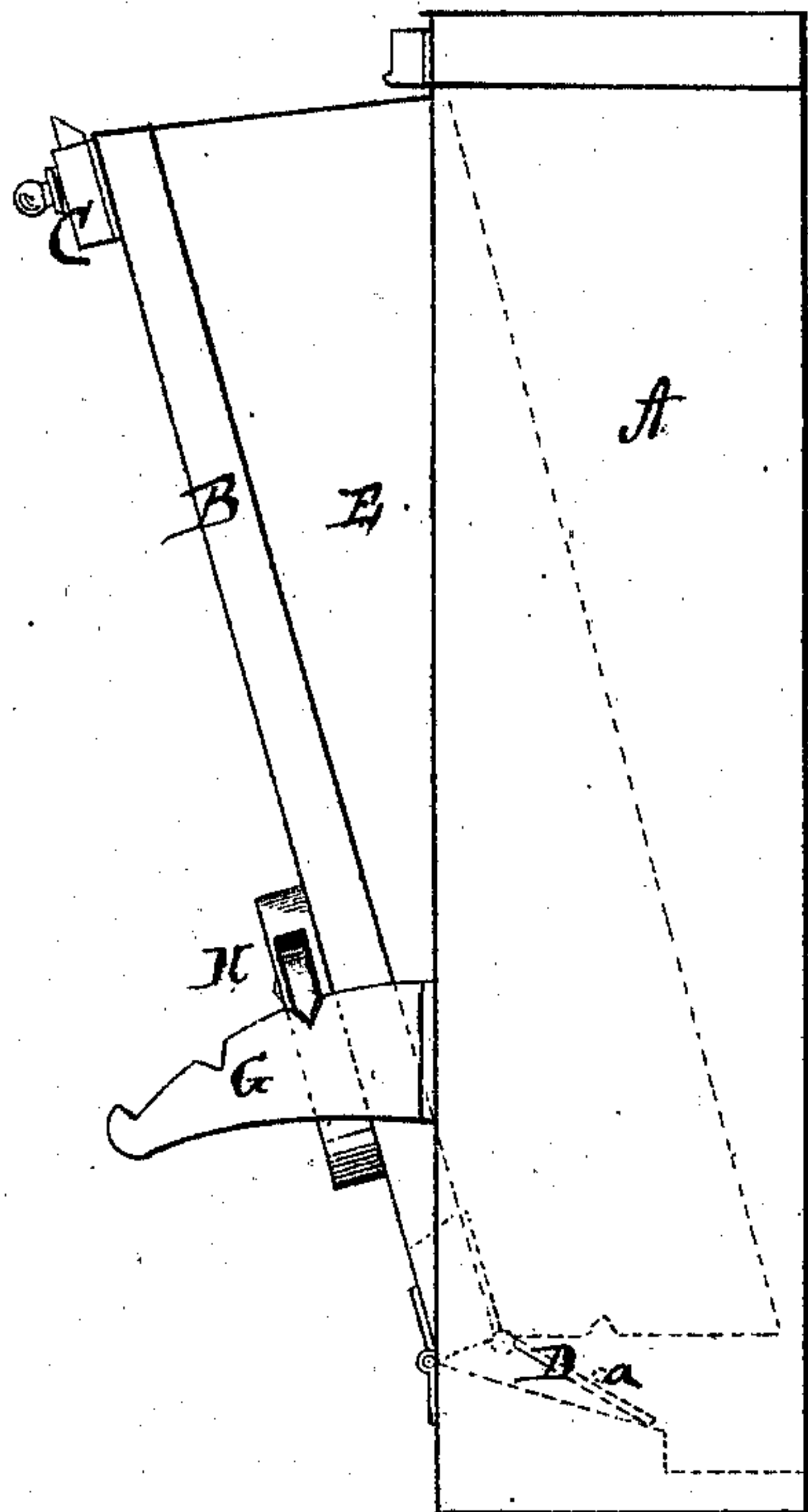


Fig. 2.

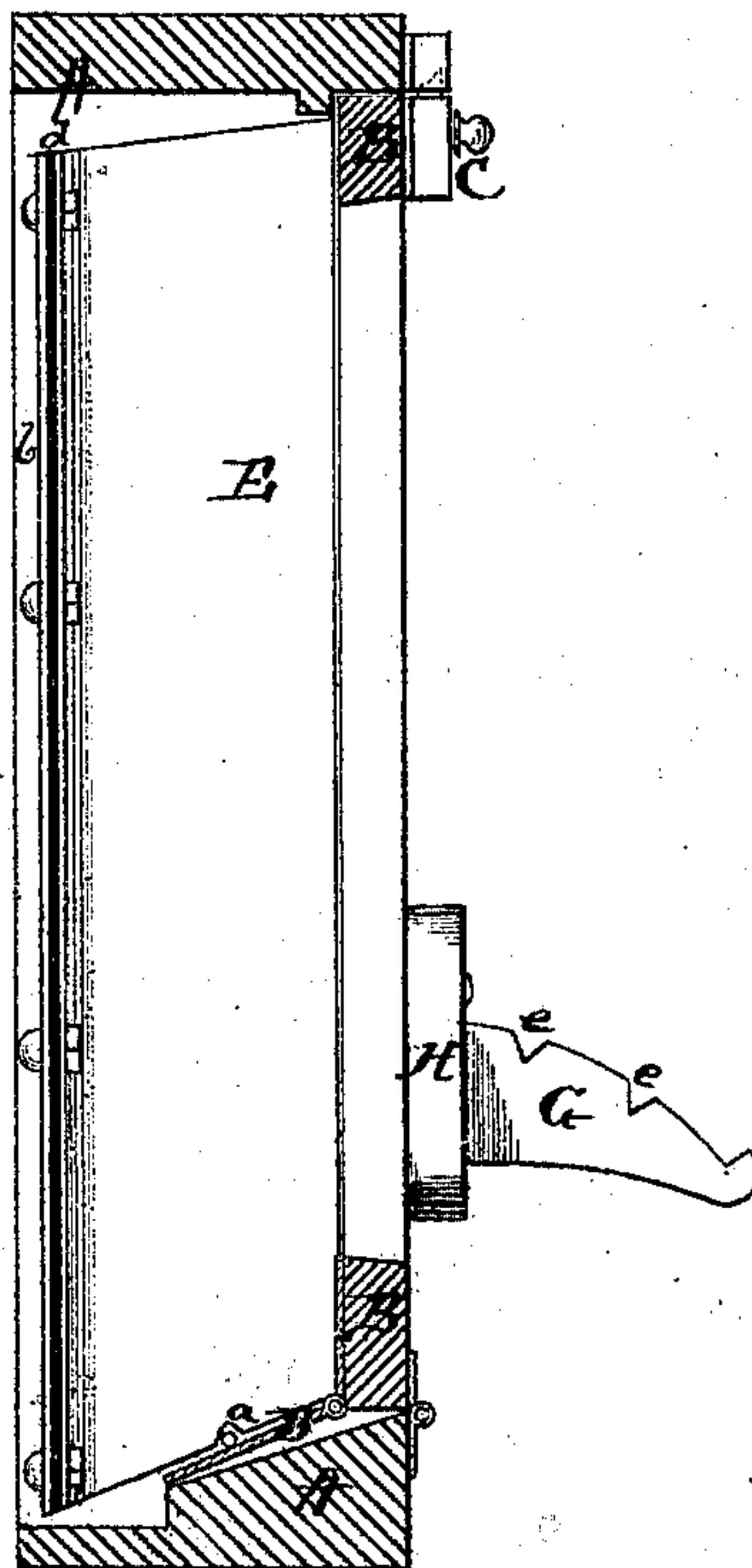
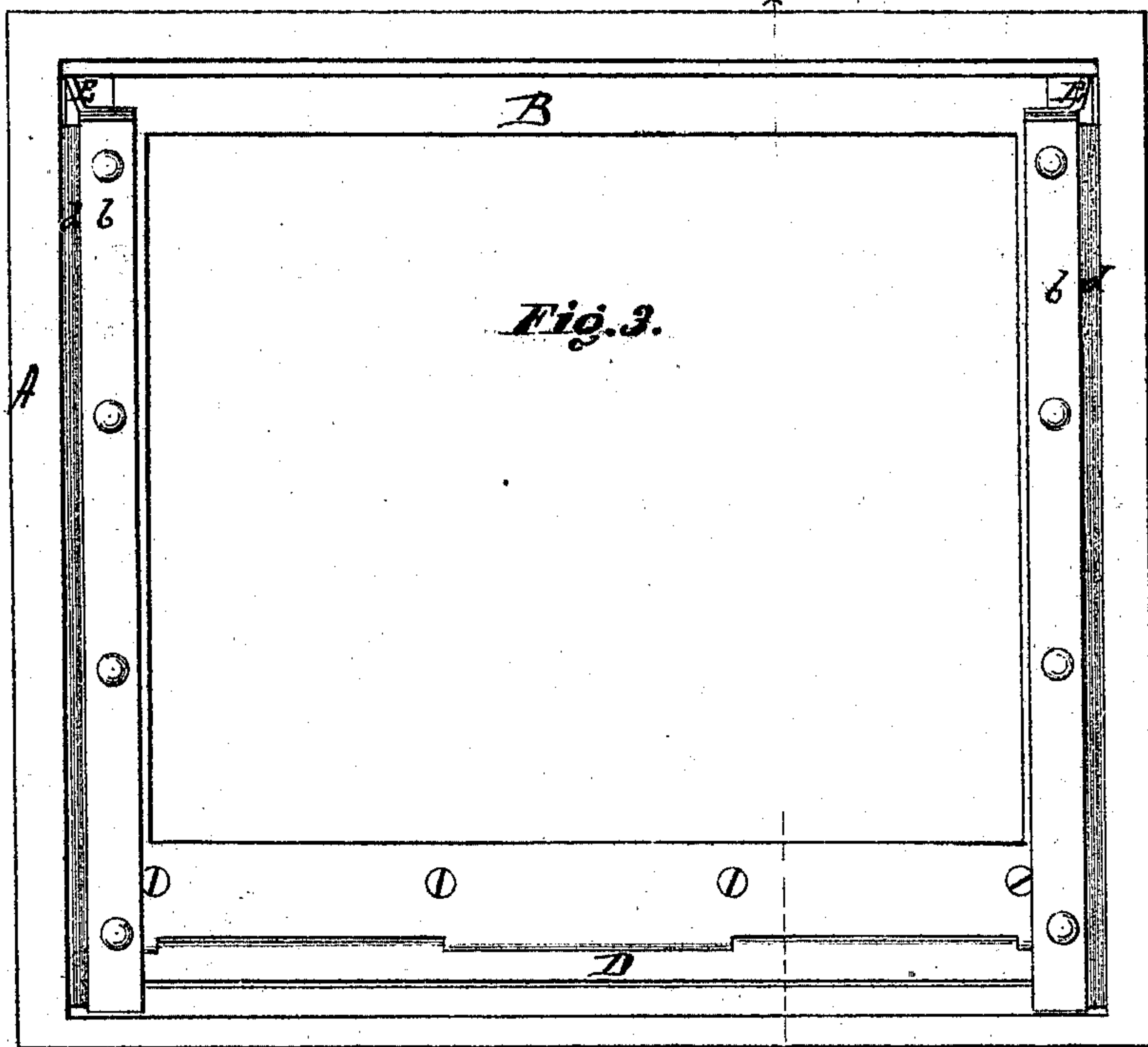
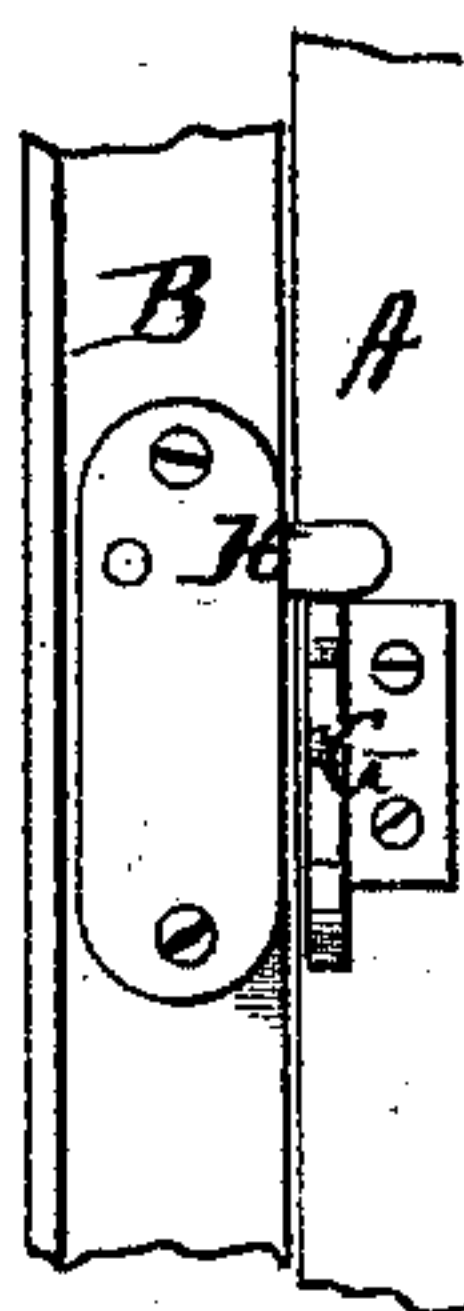


Fig. 4.



Witnesses.
Chas. Perrine,
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UNITED STATES PATENT OFFICE.

DANIEL C. JUSTISON, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN RAILROAD-CAR VENTILATORS.

Specification forming part of Letters Patent No. 120,980, dated November 14, 1871.

To all whom it may concern:

Be it known that I, DANIEL C. JUSTISON, of Wilmington, in the county of New Castle and in the State of Delaware, have invented certain new and useful Improvements in Ventilator for Railroad Cars; and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a ventilator for railroad cars, to be applied either to the window or any other desired place, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view of my ventilator, showing the same partially open. Fig. 2 is a transverse vertical section; and Fig. 3, an outside view of the ventilator, both showing it closed. Fig. 4 is a view, showing the device by which the ventilator is held at the desired angle.

A represents the window-frame of a railroad car, on the sill of which is hinged the sash B, said sash being held, when closed, by an ordinary spring-catch at its upper edge. At the lower edge of the sash B, on the outer side, is hinged a plate, D, which is held down to the sill by pins *a a* in the sides of the frame A. This sill-plate D is by these pins held close down to the sill of the frame in whatever position the sash may be, thus excluding, under all circumstances, water from the lower edge of the sash. To the sides of the sash B are attached side plates E E, extending outward from the sash at right angles for a suitable distance, and the outer edges of said plates are bent inward, as shown. To the inwardly-bent edge of each side plate E is, by means of a riveted metallic strip, *b*, attached a rubber strip, *d*, which extends outward against

the sides of the frame A, and prevents water from entering between the same. To the inner side of the frame A is attached a segmental bar, G, with notches *e e* in its upper edge, and to the sash B is attached a spring-catch, H, to engage in said notches and hold the sash at any angle. It will be noticed that, when the sash is opened just far enough to allow the catch H to engage in the first notch in the bar G, the sash is, so to speak, water-proof, because the upper edges of the side plates E E have not yet entirely cleared the sides of the frame, and hence the rubber strips *d d* prevent any water from entering at the sides, while the sill-plate D performs the same office at the bottom. There is, however, at the top sufficient opening for ventilation. By opening or letting down the sash still more the opening for ventilation is correspondingly increased. The same arrangement for ventilation may be used at the top of the car, where the ventilators usually are located.

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

1. The sash B, hinged at its lower edge and provided with the hinged sill-plate D, operating under the pins *a a*, substantially as and for the purposes herein set forth.

2. The side plates E E, attached to the sides of the sash B and provided at their outer edges with rubber strips *d d*, substantially as and for the purposes herein set forth.

3. The combination of the frame A, sash B, sill-plate D, side plates E E, with rubber strips *d d*, notched bar G, and spring-catches C H, all constructed and arranged to operate substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of October, 1871.

DANIEL C. JUSTISON.

Witnesses:

E. W. W. GRIFFIN,
JOHN MARTIN.

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