

Stymer & Egan,

Car Ventilator.

No. 96,501.

Patented Nov. 2, 1869.

FIG. 1.

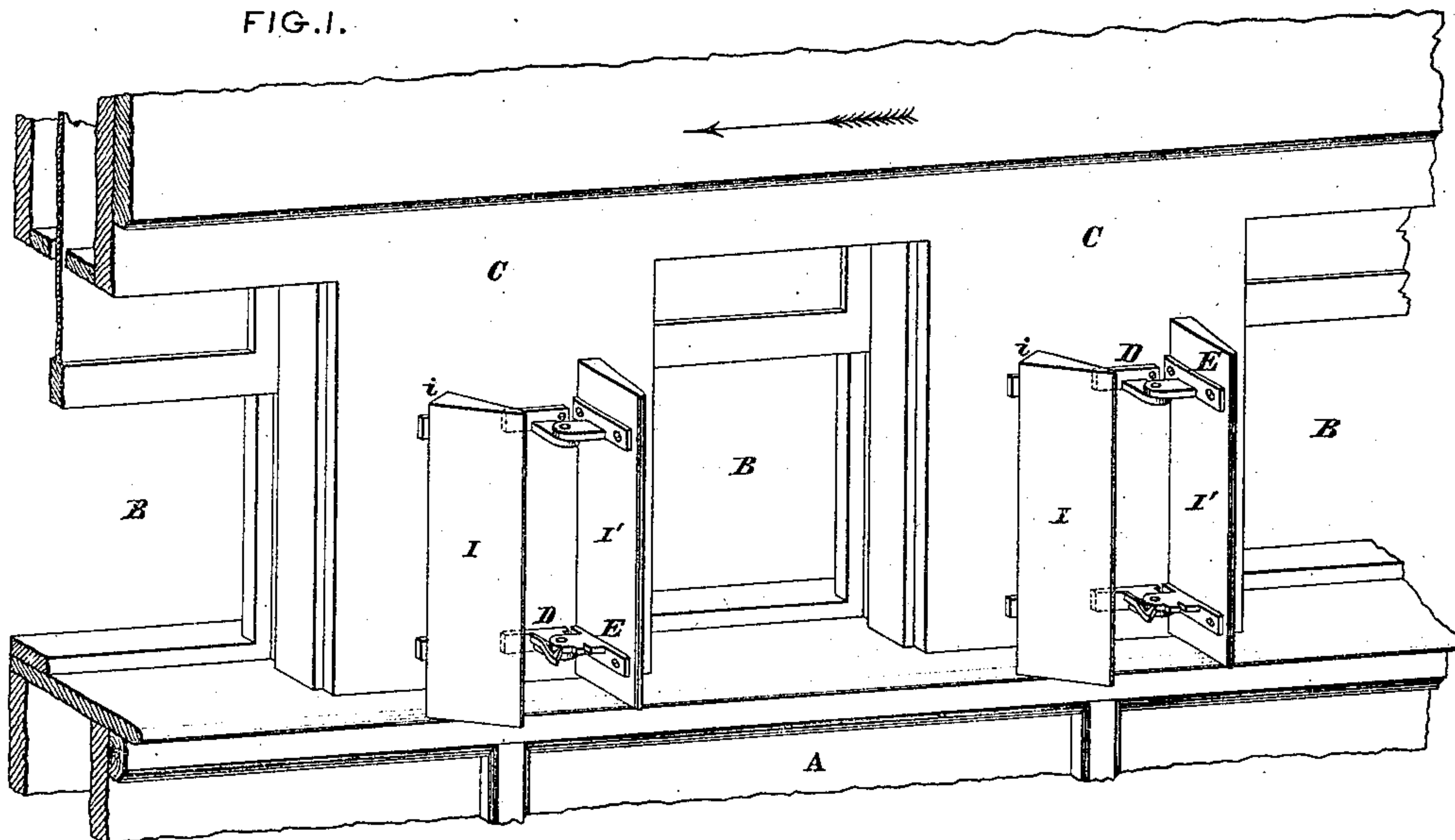


FIG. 2.

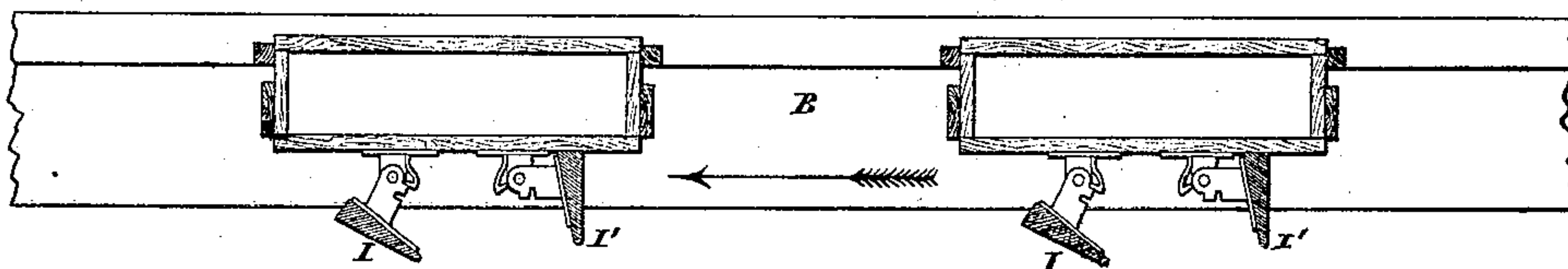


FIG. 3.

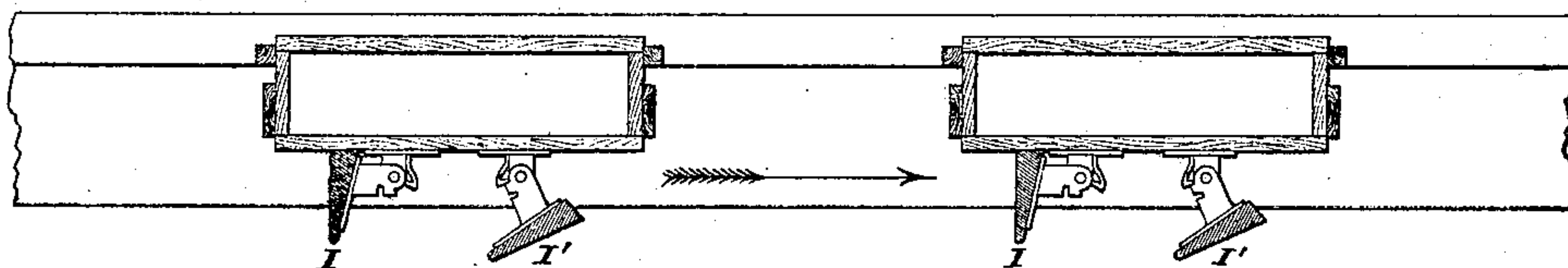


FIG. 4.

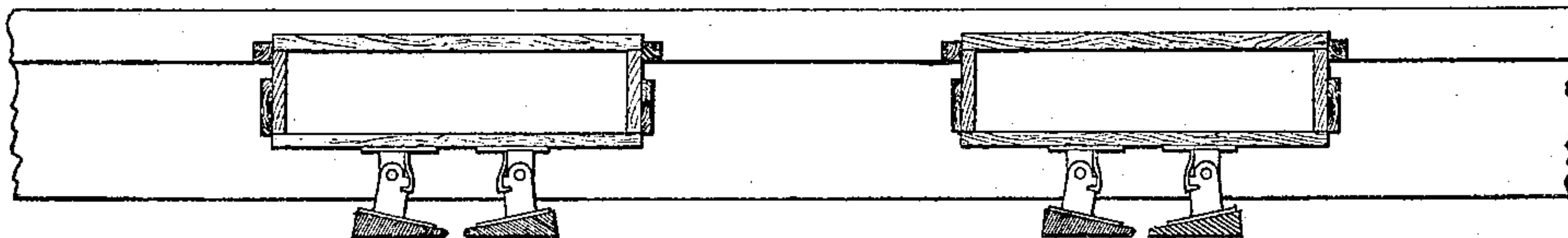


FIG. 5.

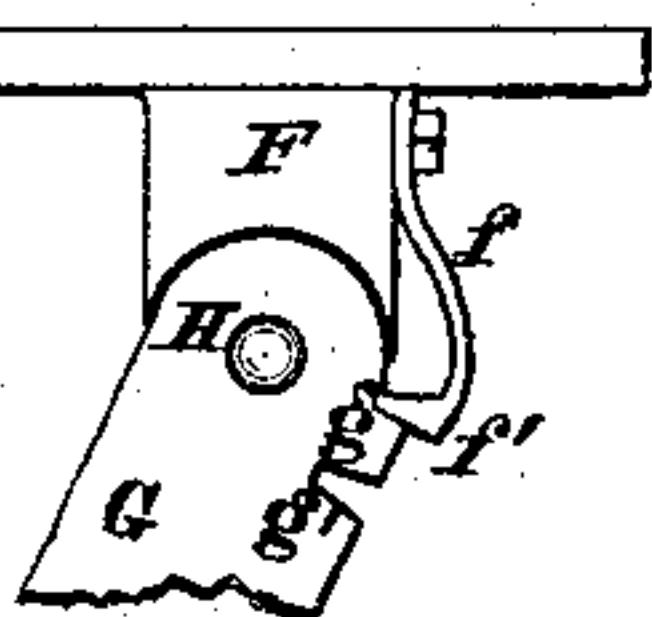
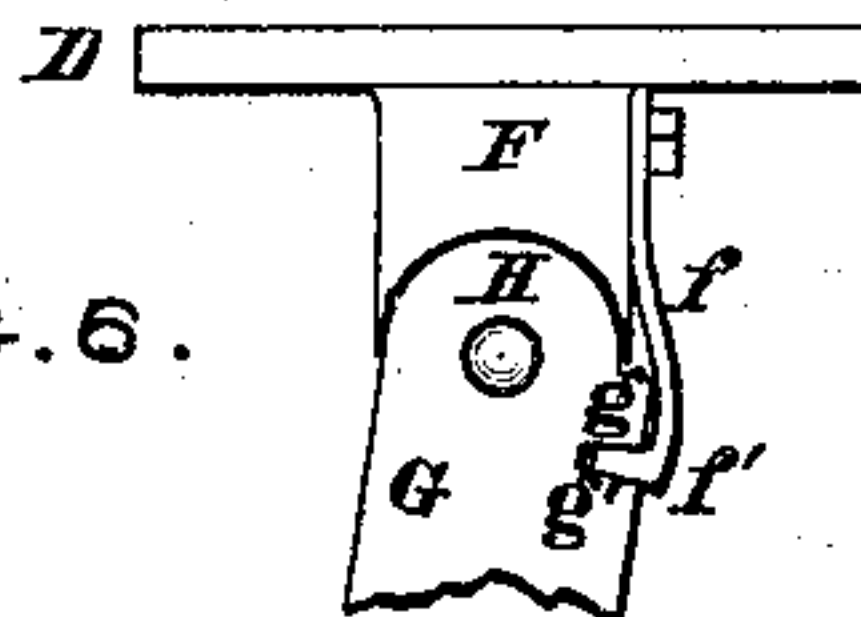


FIG. 6.



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OVERTON J. STYNER AND JOHN EGAN, OF LAFAYETTE, INDIANA.

Letters Patent No. 96,501, dated November 2, 1869.

RAILROAD-CAR VENTILATOR.

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

We, OVERTON J. STYNER and JOHN EGAN, both of Lafayette, in the county of Tippecanoe, and State of Indiana, have invented a certain Device for the Ventilation of Railroad-Cars, of which the following is a specification.

The first part of our invention relates to the application of a series of movable automatic deflectors to the sides of the car, to cause an outward current of air through the windows.

The second part of our invention relates to a peculiar form of hinge for application to said deflectors, which allows the deflectors to be operated automatically or otherwise, as desired.

Figure 1 is a perspective view of a portion of the side of a railroad-car, embodying our invention.

Figure 2 is a horizontal section through the windows and deflectors, the car supposed to be moving in the direction of the arrow.

Figure 3 is a similar view, in which the car is supposed to be moving in a contrary direction.

Figure 4 shows the deflectors when so arranged as to be inoperative.

Figures 5 and 6 are enlarged plans of the lower hinge.

A is the side of a railroad-car, and

B, the windows.

To the portions C of the side A, between the windows, are affixed hinges, having screw-plates, D and E, for attachment respectively to the car and deflector; and horizontal pintle-plates, F G, forming with the pintle H, the hinge proper.

Attached to the plate F is a spring-catch, *f*, whose intumed end, *f'*, is made to rest against a shoulder, *g*, of the plate G, or to enter a notch, *g'*, of the same.

The upper hinges have similar elements, D E F G, to the lower hinges, but have no device for holding the deflectors to any stated position.

I I' are deflectors, which are attached to the plates E of the hinges.

The deflectors have a bevelled form, and their thick edge *i* is made to rest against the side of the car when the deflector is in its operative position shown by I', figs. 1 and 2.

When the motion of the car is reversed, the deflector is carried around so as to assume the position shown by I, in fig. 2, and I', in fig. 3; in this position the shoulder *g* of the plate G rests against the catch *f'* of the spring *f*, preventing further movement of the said deflector.

When it is desired to render the deflectors unautomatic by the motion of the car through the air, the

catch *f'* is raised above the shoulder *g*, and the deflector swung around until its outside is parallel with the side of the car, when the catch *f'* will fall into the notch *g'*, and retain the deflector in that position, as seen in figs. 4 and 6.

The deflectors, it will be seen, are in pairs, I I', each pair occupying the space C between two windows, and only one deflector of the pair is brought in contact with the car at one time, the other being held out from the car, as seen in the drawings.

The action of the deflectors is to cause outward movements in the current of air passing along the side of the car, which establish outward currents through the windows, and prevent the entrance of dust.

The outward direction given to the air through the window does away with the nuisance of the wind from each window blowing almost exclusively upon the occupants of seats to the rear of the window, and whereby each individual has the power of inconveniencing others without the ability to benefit himself.

The air for the supply of the outward currents through the windows may be allowed to enter the car through fine gauze, or be brought in contact with or through water to detain the dust suspended in it.

A less complex form of lower hinge than that heretofore described has a shoulder or spur on one plate, F, which impinges against a similar stop or plate, G, and prevents the deflector swinging further outward than shown at I, fig. 2, and I', fig. 3.

In this form the shoulder upon the plate F performs the part of the spring-catch *f f'* shown in the drawings, and the device is always automatic, there being no arrangement for holding the deflectors in the position shown in fig. 4, where they are shown fixed with their outer sides parallel with the side of the car.

We claim, as our invention—

1. The deflectors I I', so arranged as to be thrown into and out of action by the movement of the car, or to be held in an inoperative position, substantially as described.

2. In combination with the deflectors I I', the hinge D E F *f f'* G, substantially as described.

In testimony of which invention, we hereunto set our hands.

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JOHN EGAN.

Witnesses:

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J. H. FORBES.