

R. Hitchcock.

Car Ventilator.

N^o 94,494.

Patented, Sept. 7, 1869.



Fig. 1.

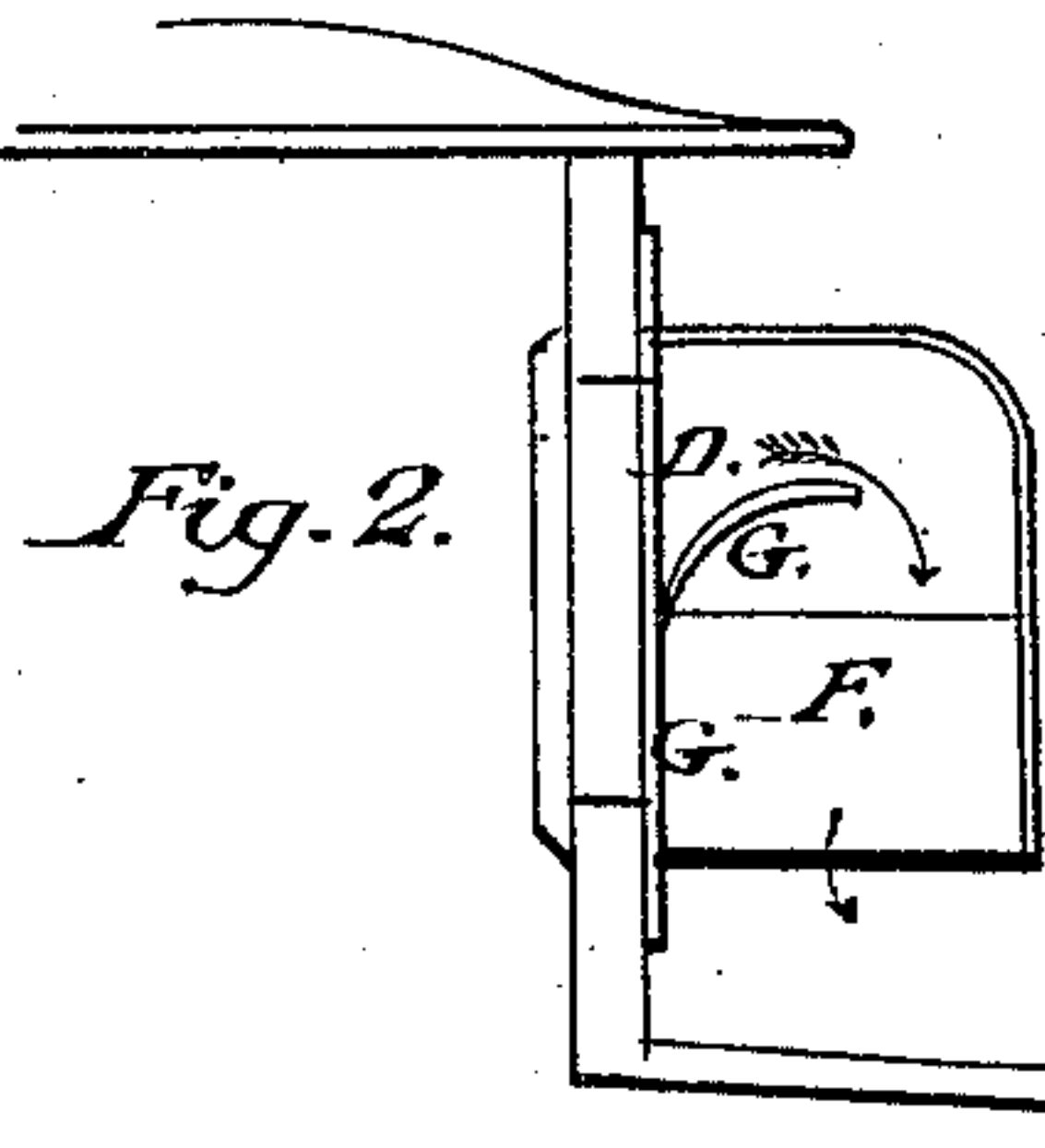
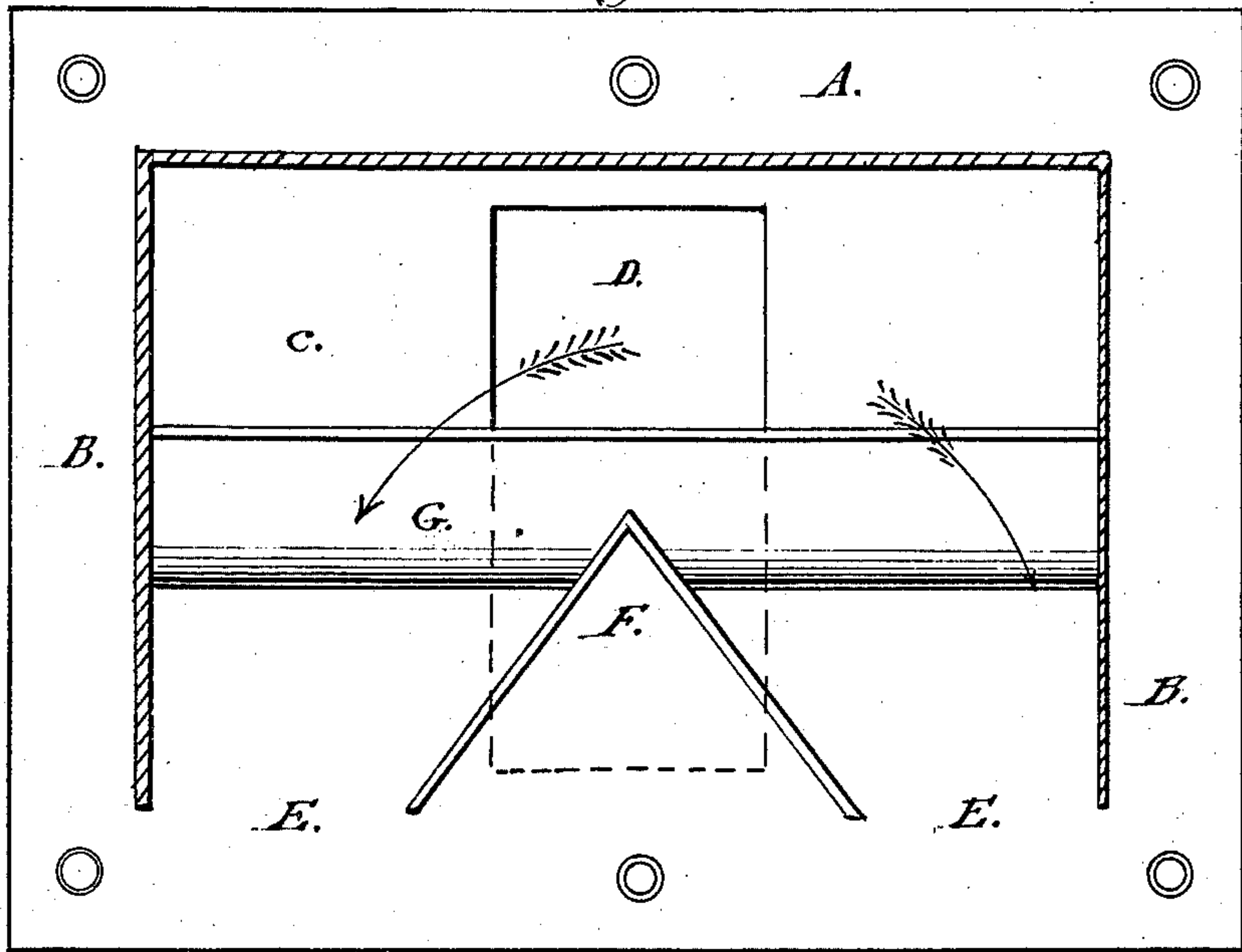


Fig. 2.

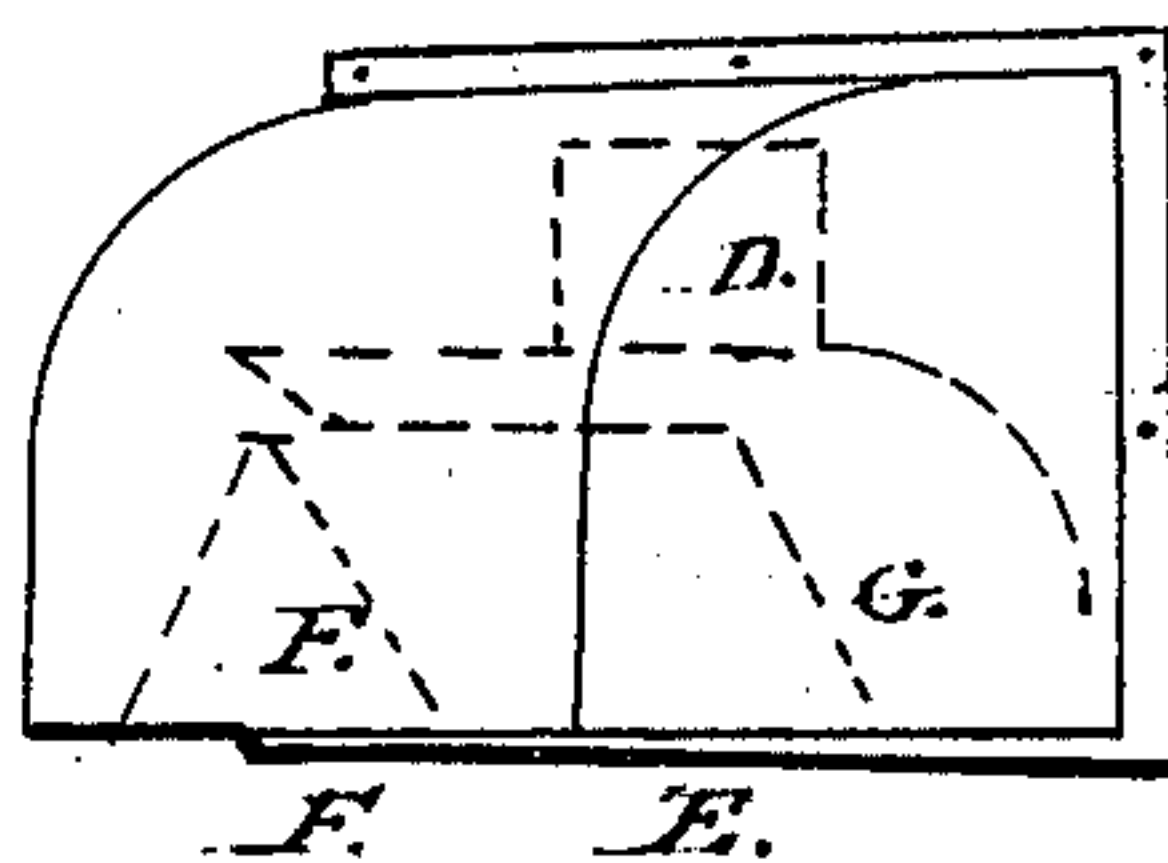


Fig. 3.

WITNESSES:
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Letters Patent No. 94,494, dated September 7, 1869.

IMPROVEMENT IN 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 I, ROBERT HITCHCOCK, of Springfield, Hampden county, State of Massachusetts, have invented a new and useful Improved Car-Ventilator; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the drawings—

Figure 1 is a sectional view,

Figure 2, an end sectional view, and

Figure 3, a perspective view of my ventilator.

My invention consists of a ventilator which has the suction-principle only in play, exhausting the air from the inside of the car, but not forcing any into it.

In construction, I form my ventilator of a case, A, of any suitable shape, and with a flange, B, by which it is attached to the side of the car or raised roof.

The back plate C, or one next to the side of the car, is provided with an opening, D, which corresponds with the trap in the side of the car.

The only other opening in the case is at the lower side at E and E, one each side of the centre-piece F, which consists of two plates, meeting at the top edges, and diverging at the base. The centre-piece, so formed, extends entirely across the lower part of the case, and serves to increase, greatly, the suction from the car, when the latter is in motion. The red arrows, in fig. 1, show the direction of the currents of air when this is the case; the current coming out through the opening D, and dividing at the apex of the centre-piece F, and discharging from the case through the openings at E and E. This effect is obtained if the car should move in either direction, the

only change being in the comparative suction of the openings E and E, the forward one generally producing the strongest current.

In order to form a deflector, to prevent dust and cinders from getting through into the car, I stitch across the case, longitudinally, a curved strip of sheet-metal, G, which projects upon a line above the centre-piece. This, however, is not essential, and is of no particular use, except when the car is not in motion, as the exhaust would prevent, of itself, any foreign matter from getting through when the car is moving.

By this means, I obtain a simple and conveniently-constructed ventilator, where suction alone is desired.

It is perfect in its results, and can be manufactured at little cost. Various alterations of size and shape may be made in the parts, without altering the principle involved.

Now, having described my invention,

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

1. The ventilator-case A, formed with opening D, communicating with the car, centre-piece F, and suction-openings E and E, and with or without the curved piece G, the parts being constructed and arranged together substantially as herein set forth, and for the purpose described.

2. A car-ventilator for the sides of a car or raised roof, in which the only suction-ports are placed at the bottom of the case, substantially as shown.

R. HITCHCOCK.

Witnesses:

EDWARD H. HYDE,
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