(No Model.)

2 Sheets—Sheet 1.

T. C. BRIGHT.

CAR VENTILATOR.

No. 596,650. Patented Jan. 4, 1898.

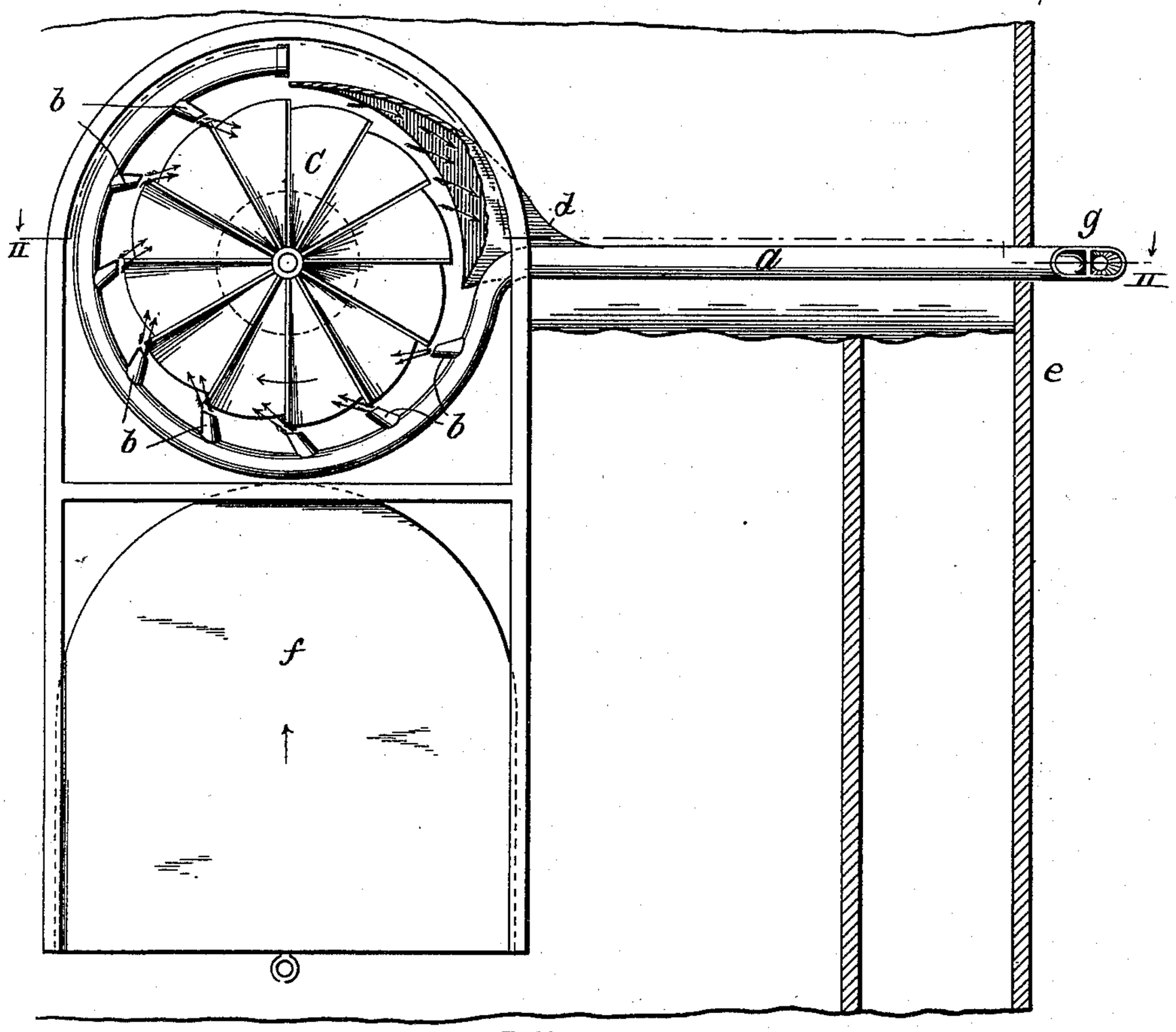

Fig. 1.

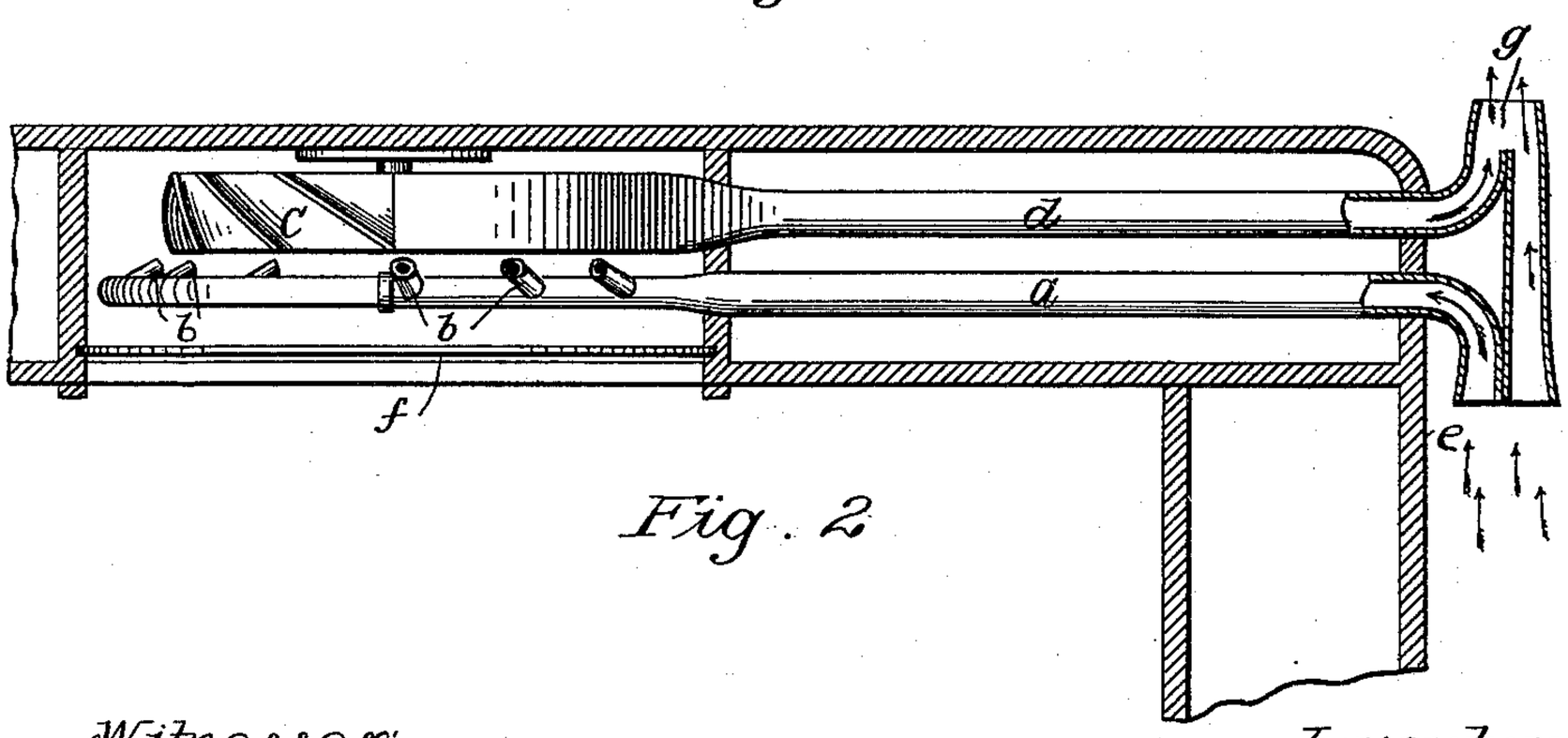

Fig. 2

Witnesses:
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(No Model.) 2 Sheets—Sheet 2.

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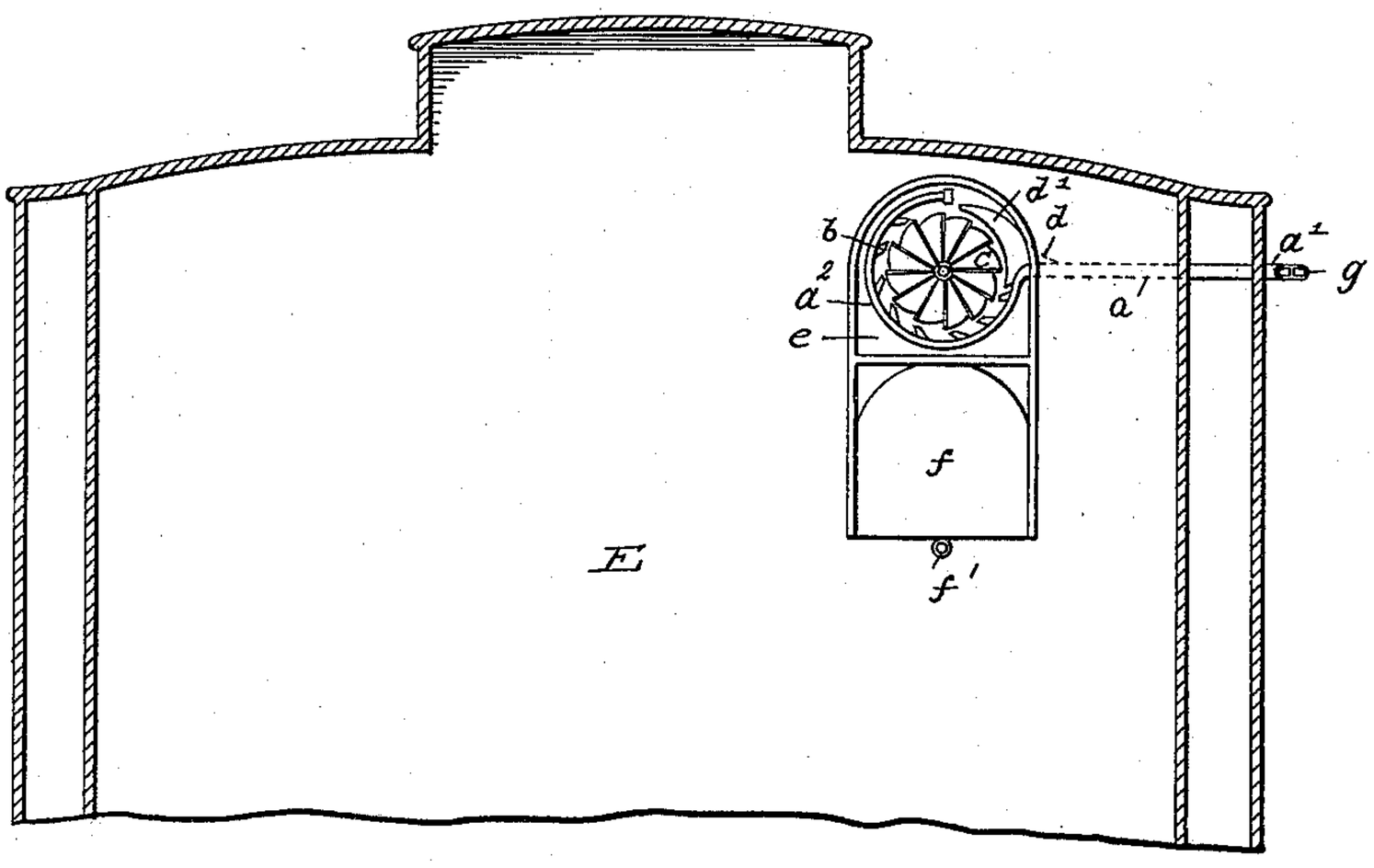
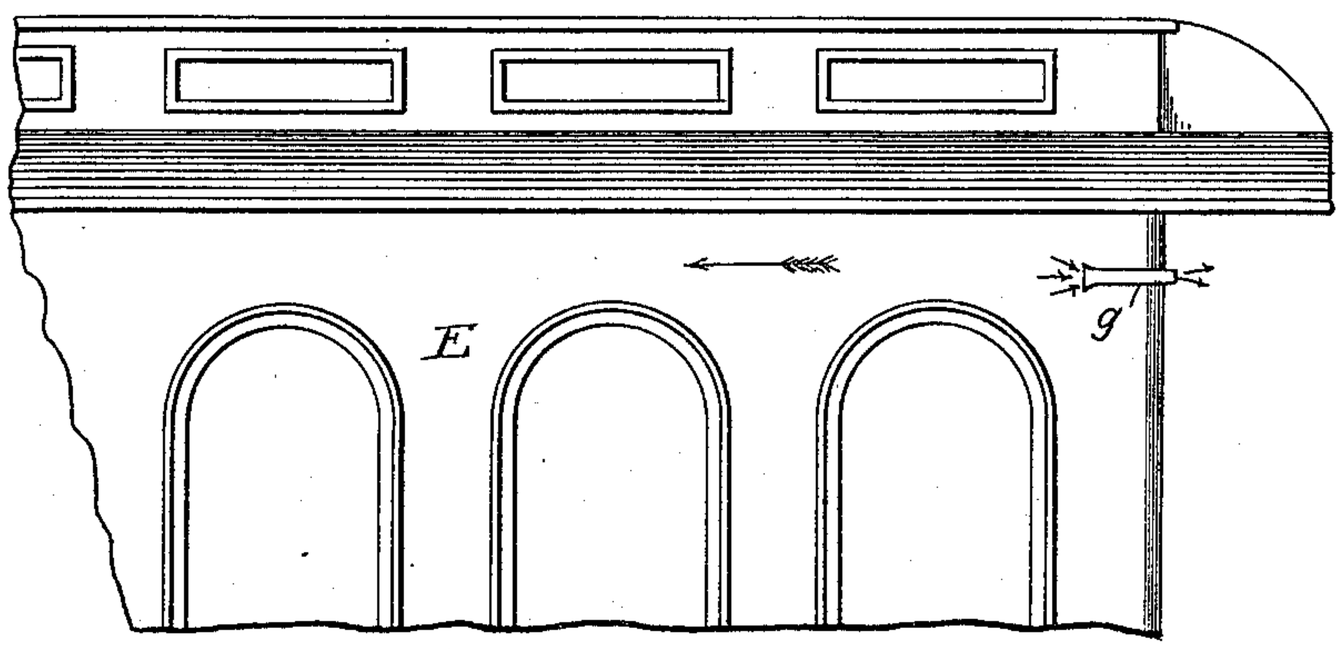


Fig. 3.

Fig. 4.



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Attys.

UNITED STATES PATENT OFFICE.

THOMAS CLARKE BRIGHT, OF KANSAS CITY, MISSOURI.

CAR-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 596,650, dated January 4, 1898.

Application filed May 21, 1897. Serial No. 637,483. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CLARKE BRIGHT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented an Improvement in Car-Ventilators, of which the following is a specification.

My invention relates to improvements in car-ventilators; and it may be said to consist in the novel arrangement and combination of parts hereinafter described, and pointed out in the claims.

In the drawings which illustrate the invention, Figure 1 represents a broken transverse sectional view of a coach provided with the improved ventilator. Fig. 2 is a sectional plan view of same, taken on line II II of Fig. 1. Fig. 3 is a broken transverse sectional view of the upper portion of a coach, showing the location of the ventilator therein. Fig. 4 is a broken side elevation of a car, showing the location of the suction-nozzle.

In constructing my invention I employ a vane-wheel C, which is preferably located between the inner and outer end walls of the coach E. Said vane-wheel has communication with the interior of the coach through an opening *e*, controlled by a sliding door *f*, having an eye *f'* upon its lower surface in order that the door may be manipulated from the car-floor with a hooked rod or other convenient means.

The vane-wheel is operated when the car is in motion by an air-blast introduced from the exterior of the car through a pipe *a*, which terminates at its outer extremity in an elbow *a'*, having a flared opening turned in the direction in which the car advances. The opposite end of pipe *a*, adjacent to the vane-wheel, is formed into a segment a^2, provided with discharge-nozzles *b*, which direct the air-blast against the vane-wheel, thus causing it to revolve and withdraw the impure air from the car through the opening *e*, from whence it is forced through an exhaust-pipe *d*, leading to the exterior of the car.

The inner end of the pipe *d* is provided with an enlarged opening *d'* in order to more readily receive the impure air from the car. The opposite end of pipe *d* extends through the side of the car and terminates in an elbow d^2, turned in the opposite direction from which the car moves.

The vane-wheel is assisted in exhausting the impure air from the coach by means of a suction-nozzle *g*, opening in the direction in which the car travels and communicating with elbow d^2. Thus when the car is in motion the air passing through nozzle *g* creates a suction at the terminal of the elbow d^2 and exhausts the air therefrom.

As the door and window joints of the coach are not air-tight, a fresh supply of air is furnished from that source, but should this be found inadequate my arrangement may be placed in the opposite end of the car, in which case the vanes comprising wheel *c* would be so inclined to draw the air into the car instead of expelling therefrom.

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

1. In a car-ventilator, a vane-wheel communicating with the interior of the car; means for discharging air against said wheel, and an outlet adjacent to the vane-wheel to receive and conduct the foul air from the coach, substantially as described.

2. In a car-ventilator, a vane-wheel communicating with the interior of the coach; a sliding door arranged to cut off the opening between the wheel and the interior of the coach; a supply-pipe having a funnel-shaped elbow at its outer terminal, and openings for the discharge of air at its inner end, and a pipe for conducting the foul air from the coach, substantially as described.

3. A car-ventilator, comprising a vane-wheel communicating with the interior of the car; means for cutting off the point of communication between the interior of the car and the vane-wheel; a supply-pipe terminating in an elbow at its outer end, and a segment at its inner end, discharge-nozzles communicating with the inner portion of the segment, and an exhaust-pipe having an enlarged

opening at its inner end and terminating in an elbow at its outer end, substantially as set forth.

4. A car-ventilator, comprising a vane-wheel communicating with the interior of the coach, a supply-pipe for furnishing an air-blast to revolve the vane-wheel; an exhaust-pipe for relieving the car of impure air, and a suction-nozzle communicating with the outer terminal of the exhaust-pipe, for the purpose set forth and described.

THOMAS CLARKE BRIGHT.

Witnesses:
JAMES M. JONES,
P. P. CAREY.