

No. 656,247.

Patented Aug. 21, 1900.

G. GUSTAFSON.
CAR VENTILATOR.

(Application filed May 6, 1898.)

(No Model.)

Fig. 1.

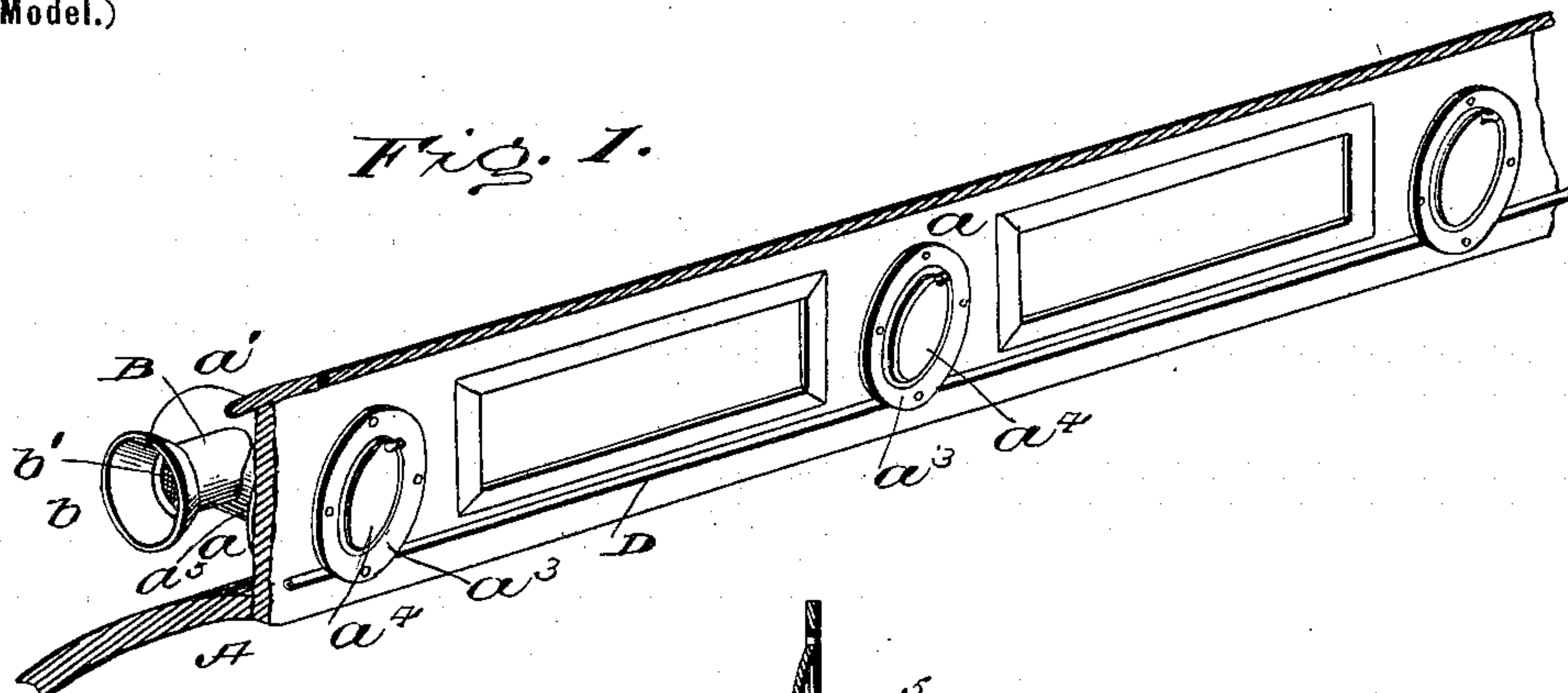


Fig. 2.

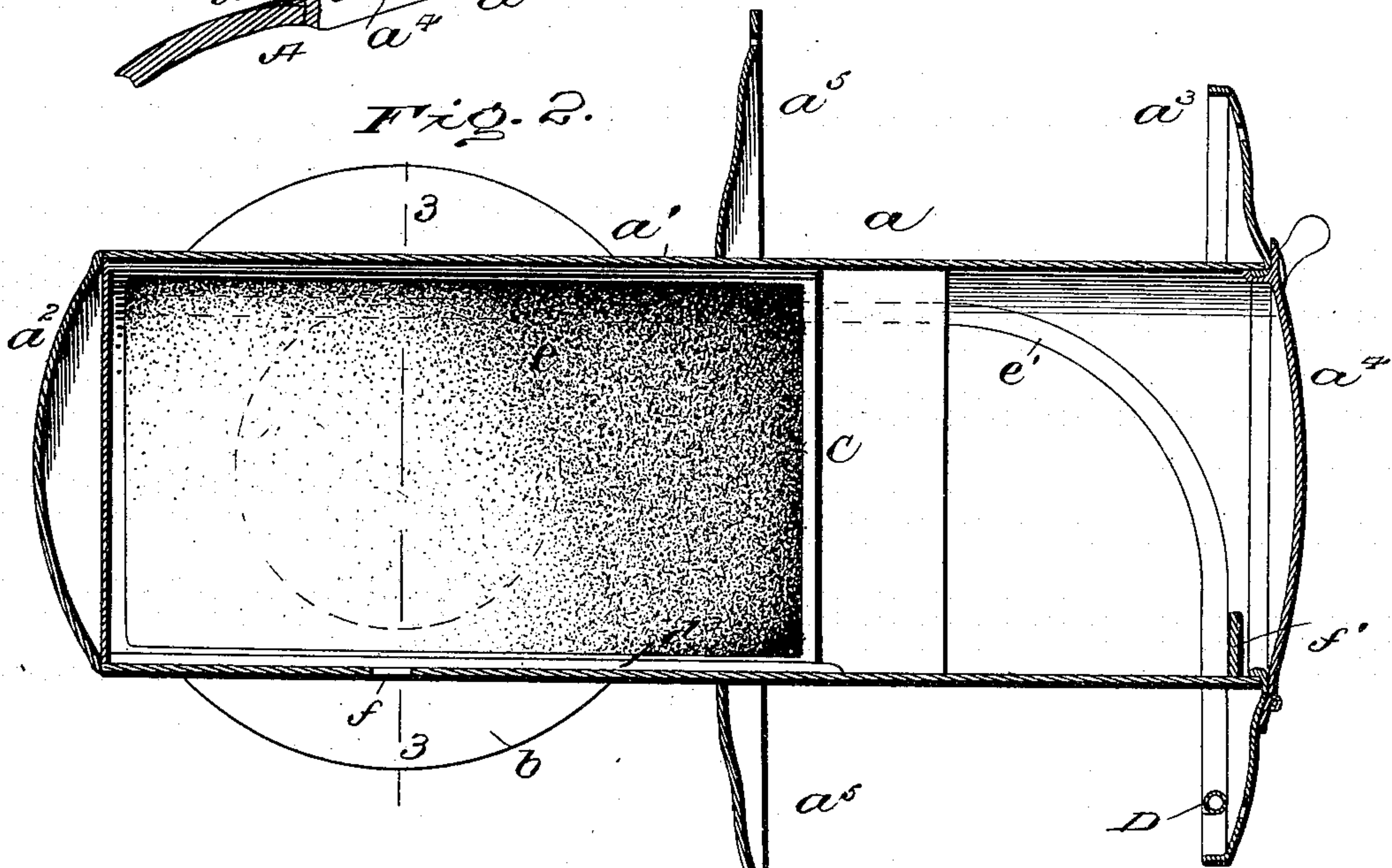


Fig. 3.

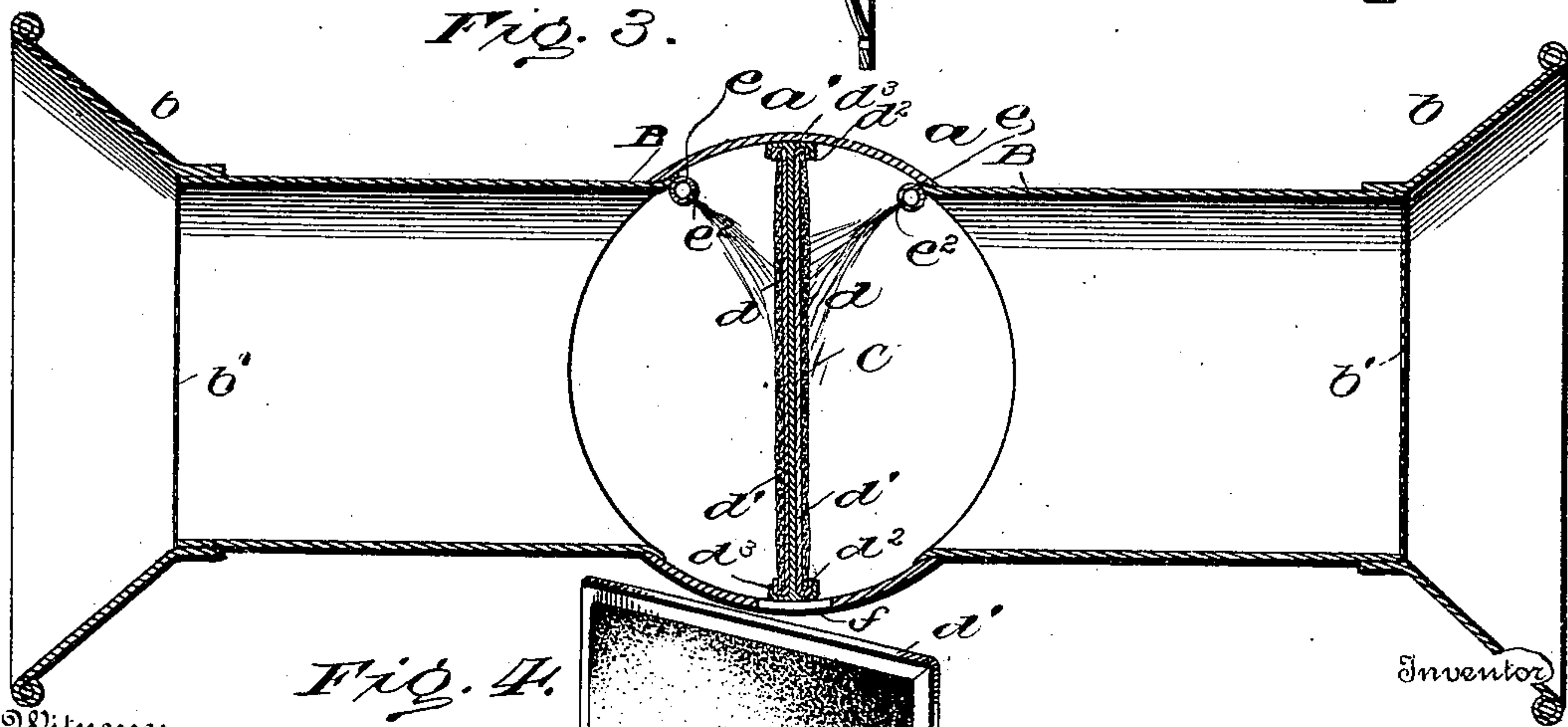
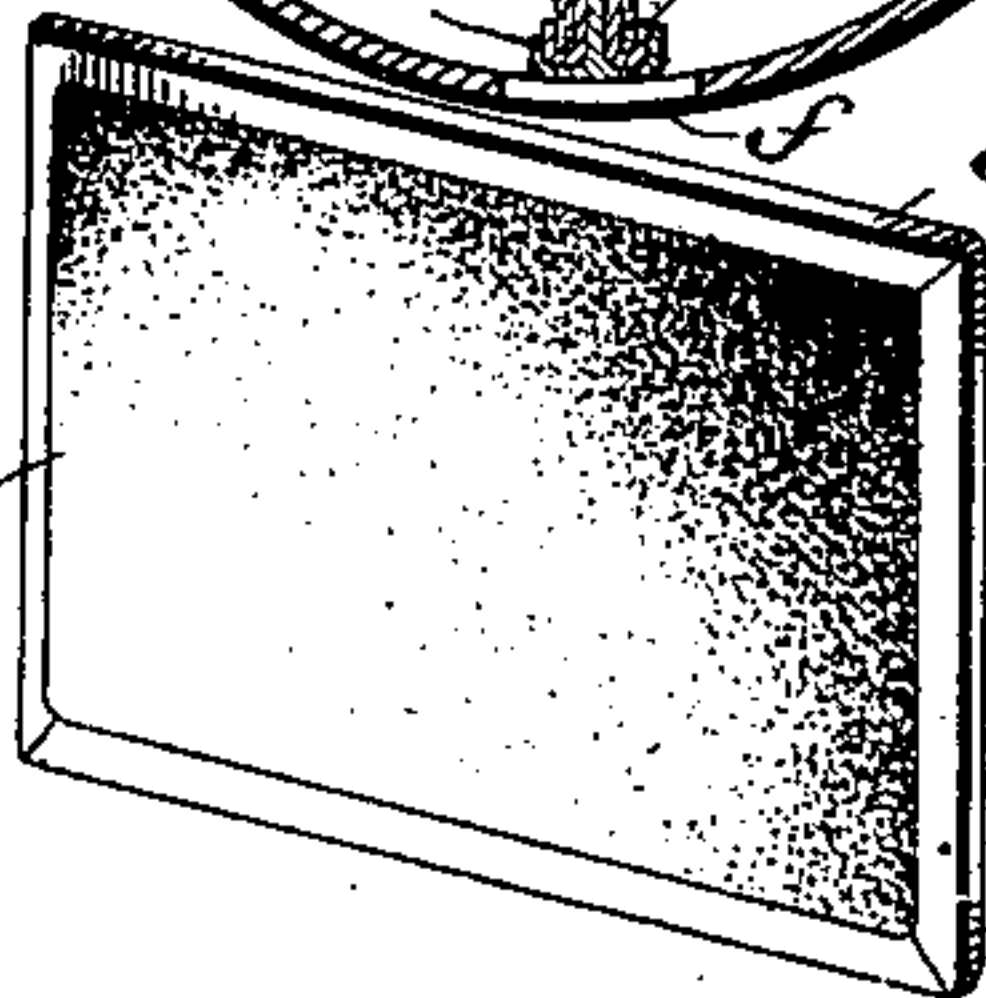


Fig. 4.



Witnesses

Jno. M. M. M.
E. H. M. M.

Inventor

Gus. Gustafson,
by J. H. M. M.
Attorney

UNITED STATES PATENT OFFICE.

GUSTAF GUSTAFSON, OF NEW CASTLE, COLORADO.

CAR-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 656,247, dated August 21, 1900.

Application filed May 6, 1898. Serial No. 679,934. (No model.)

To all whom it may concern:

Be it known that I, GUSTAF GUSTAFSON, of New Castle, in the county of Garfield and State of Colorado, have invented certain new and useful Improvements in Car-Ventilators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention contemplates certain new and useful improvements in car-ventilators, having special reference to steam-railway cars.

The object of the invention is to provide improved highly-efficient means for thoroughly ventilating railway-cars and at the same time effectively prevent the ingress of dust as well as cinders. This I accomplish by mounting a series of ventilators in the roof of a car, preferably along that portion of the roof in which the transoms are located, or at any part of the car. Each ventilator consists of a hollow body extended through the roof and having lateral inlets, each of the latter being provided with screens to prevent the inflow of cinders and the like. The inner end of this body is provided with a door which acts as a damper. Centrally within this body in line with the inlets is a partition, the faces of which are covered with felt or other suitable material, which is designed to be sprinkled with water supplied from spray-pipes which lead into the body from a main supply-pipe, through which water is supplied under pressure from the engine or other suitable source.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 shows a part of a car-roof provided with my improved ventilators. Fig. 2 is a vertical longitudinal sectional view of one of the ventilators. Fig. 3 is a cross-sectional view on line 3 3, Fig. 2. Fig. 4 is a detail.

Referring to the drawings, A designates a portion of a car-roof, and a a series of ventilators extended horizontally through said roof. While I have shown these ventilators as being positioned in the roof above the transoms, yet it will be understood that the same

may be located at any desired point; but I prefer to position them as shown.

Each ventilator comprises a central body a' , which is shown as being of cylindrical form. It is tightly closed at its outer end a^2 , while over its inner end is fitted a flange-ring a^3 , to which a door or damper a^4 is hinged. By means of this door the ventilator may be opened or closed. The flange-ring a^3 is designed to fit against the inner surface of roof A, while a similar ring a^5 on the exterior of body a' bears against the outer surface of said roof, both rings being attached to the latter by nails or screws.

B B designate two inlet-tubes which extend laterally from the cylindrical body a' , said tubes being flared at their outer ends b into funnel-like form. Within each of these inlet-tubes adjacent the flared portions thereof is a wire screen or netting b' . These nettings are designed to prevent the inlet of cinders.

C is a partition located within body a' and extending longitudinally thereof from its outer end to near its inner end. On the faces of this partition opposite the inner ends of the lateral inlets are pads d of felt or other suitable material. Each pad is preferably secured directly to a plate d' , which fits at its longitudinal edges in grooves d^2 , formed by flanged plates d^3 , extending from the faces of partition C; but I do not confine myself in this respect, since these pads may be positioned in any preferred manner.

D designates a water-supply pipe which runs longitudinally of the car adjacent the roof thereof. This pipe need not be very large in diameter, since only a small head of water is required in connection with my improved ventilator. Two branch pipes e extend into the body a' of each ventilator, the same leading from pipe D into said body adjacent to the inner end thereof. These branch pipes e are bent or curved at e' and are then extended in parallelism on either side of the partition C. Each branch pipe is closed at its extreme outer end and is provided with small jet-holes e^2 , whereby water supplied from said branch pipes will be sprayed against the pads d . By thus dampening these pads dust admitted through the screens will be caught by and made to adhere to said pads.

To prevent any possible inconvenience consequent upon too great a supply of water, an outlet-opening *f* is formed in the under side of the body *a'* beneath partition C. The surplus water may pass outward through this opening. Likewise to prevent any water accumulating on the bottom of the body *a'* from passing into the car when the door or damper *a⁴* is open I have formed a small bridge *f'* at the inner end of said body.

From what has been said it will be seen that in practice water is supplied from the engine or other suitable source through pipe D and passing through branch pipes *e* will be ejected in sprays against the pads of felt. The extent to which the car is to be ventilated is controlled by the opening or closing of the dampers *a⁴*. When open, the air drawn in through either or both of the lateral branches will be admitted directly into the car. Not only is this air freed from cinders and dust, but its temperature is lowered by reason of coming in contact with the moistened pads. It will be understood, of course, that any suitable means may be employed for flexibly connecting the water-supply pipes of the various cars of a train. I have not shown such connection, since it forms no part of my invention.

I claim as my invention—

1. A car-ventilator comprising a main body open at its inner end and having outer lateral oppositely-facing inlets, absorbent material, such as felt, located centrally within said body over the inner ends of said inlets, a support therefor, and spray-pipes located in said body on opposite sides of and facing said absorbent material, as set forth.

2. A car-ventilator comprising a main body open at its inner end and having outer lateral

oppositely-facing inlets, a partition disposed centrally within said body and extending over the inner ends of said inlets, sections of felt, or other absorbent material, removably secured to the sides of said partition, and spray-pipes extending into said body along the top thereof on each side of said partition, substantially as set forth.

3. The combination with a car having a main water-supply pipe, of a series of ventilators extending through the car-roof, each of said ventilators having a main body portion open at its inner end, a damper for said end, oppositely-facing inlet-tubes extending laterally from said body outside of the car, a central partition within said body having felt or the like secured thereto, and spray-pipes extending from said main water-supply pipe into said body on opposite sides of said partition so as to supply water to said felt, or the like, on said partition, substantially as set forth.

4. A car-ventilator comprising a main body open at its inner end and having outer lateral oppositely-facing inlets, a partition disposed centrally within said body and extending over the inner ends of said inlets and having grooves on both sides, sections of absorbent material removably secured in said grooves, and spray-pipes extended longitudinally within said body on opposite sides of said partition, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

GUS. GUSTAFSON.

Witnesses:

JOHN T. SCHUMATE,
EDWARD SCHIMEK.