

(No Model.)

E. S. PERRY.
CAR VENTILATOR.

No. 597,019.

Patented Jan. 11, 1898.

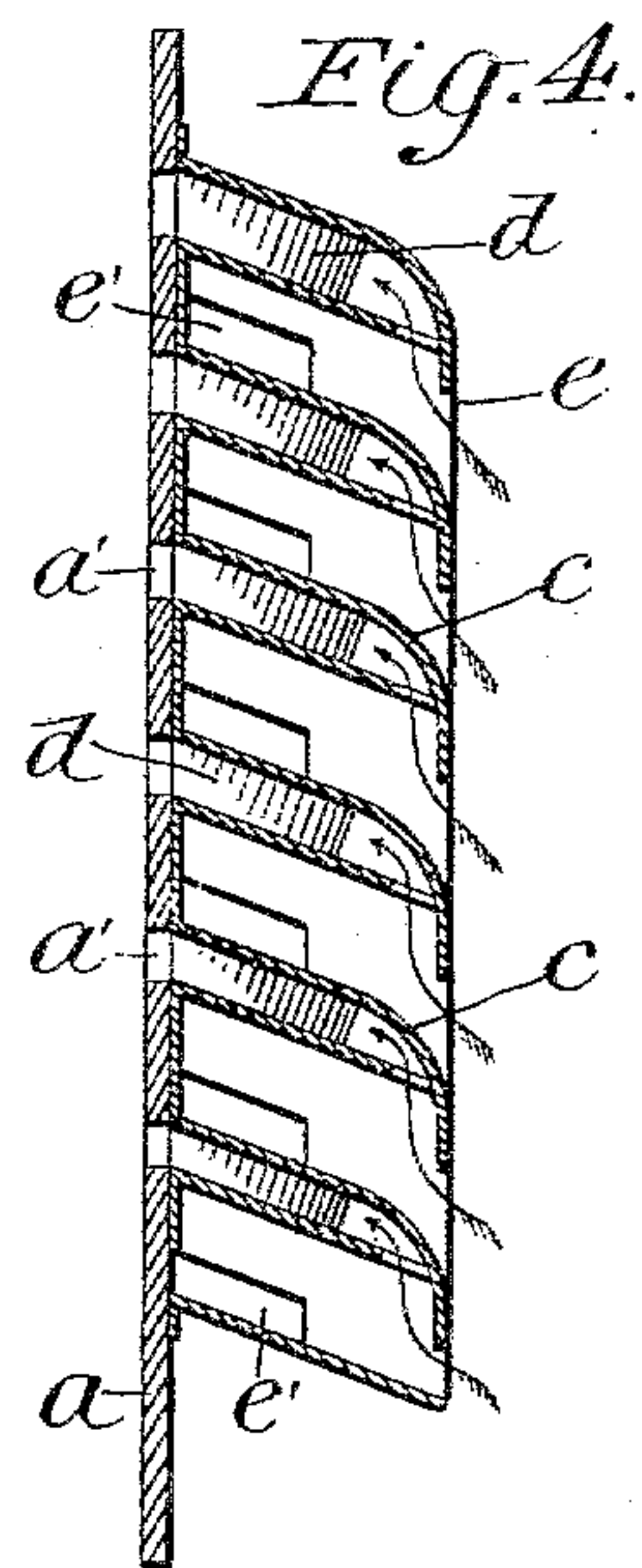
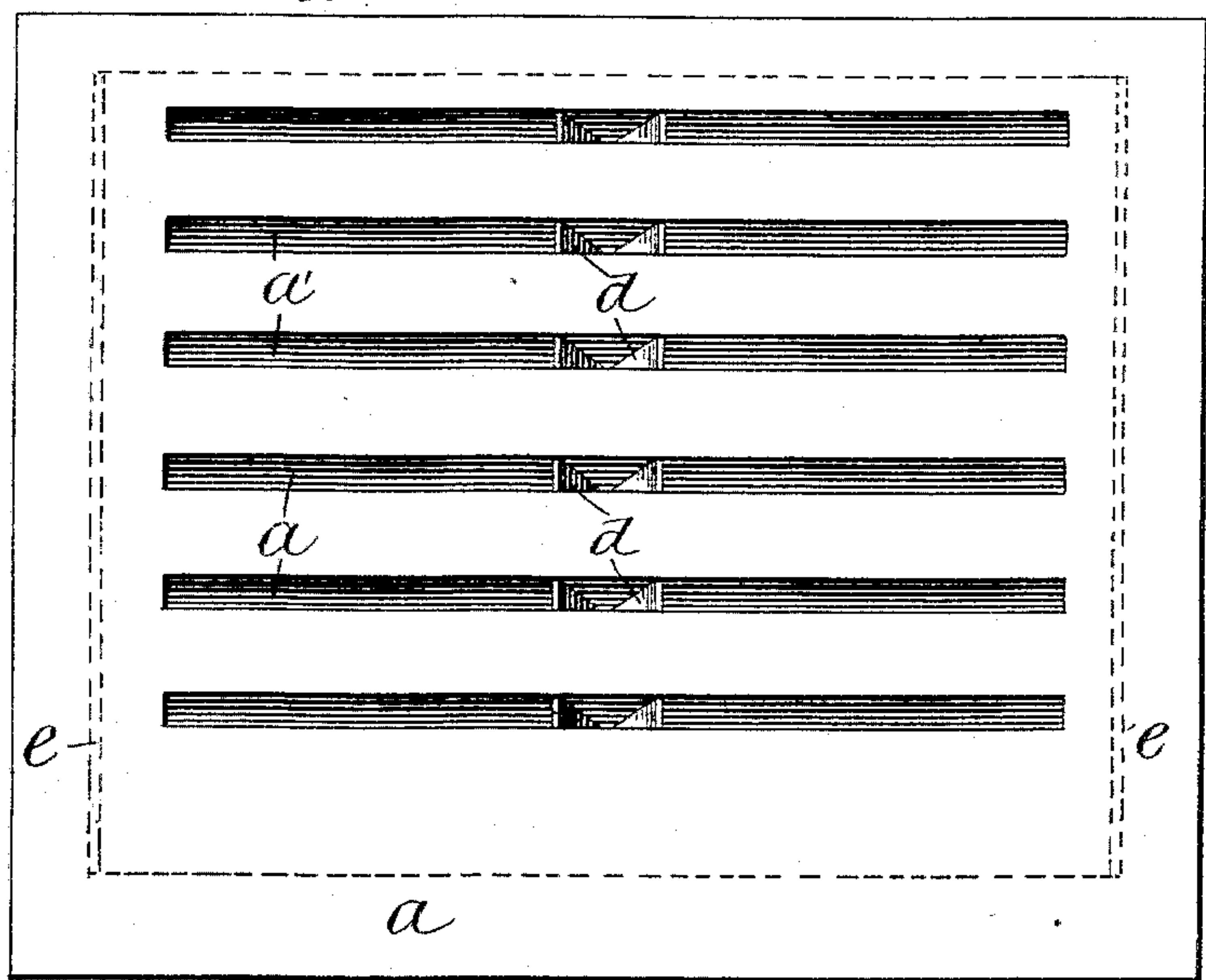
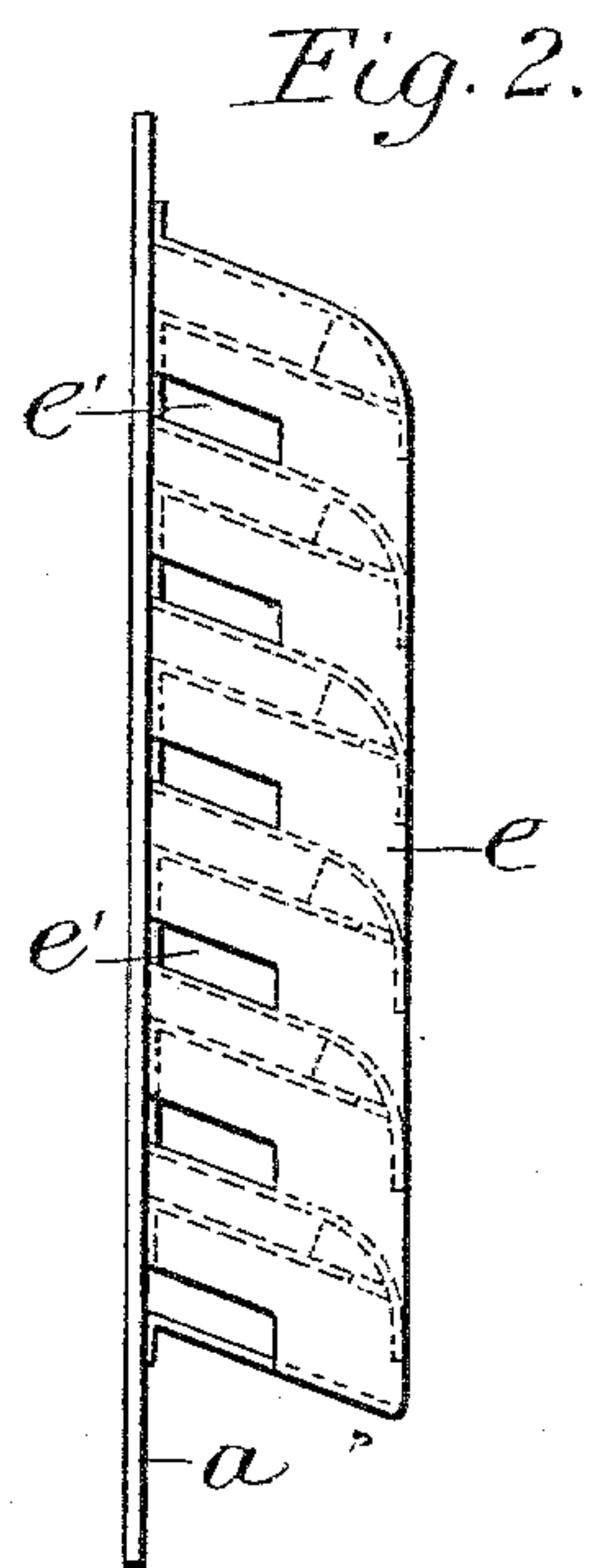
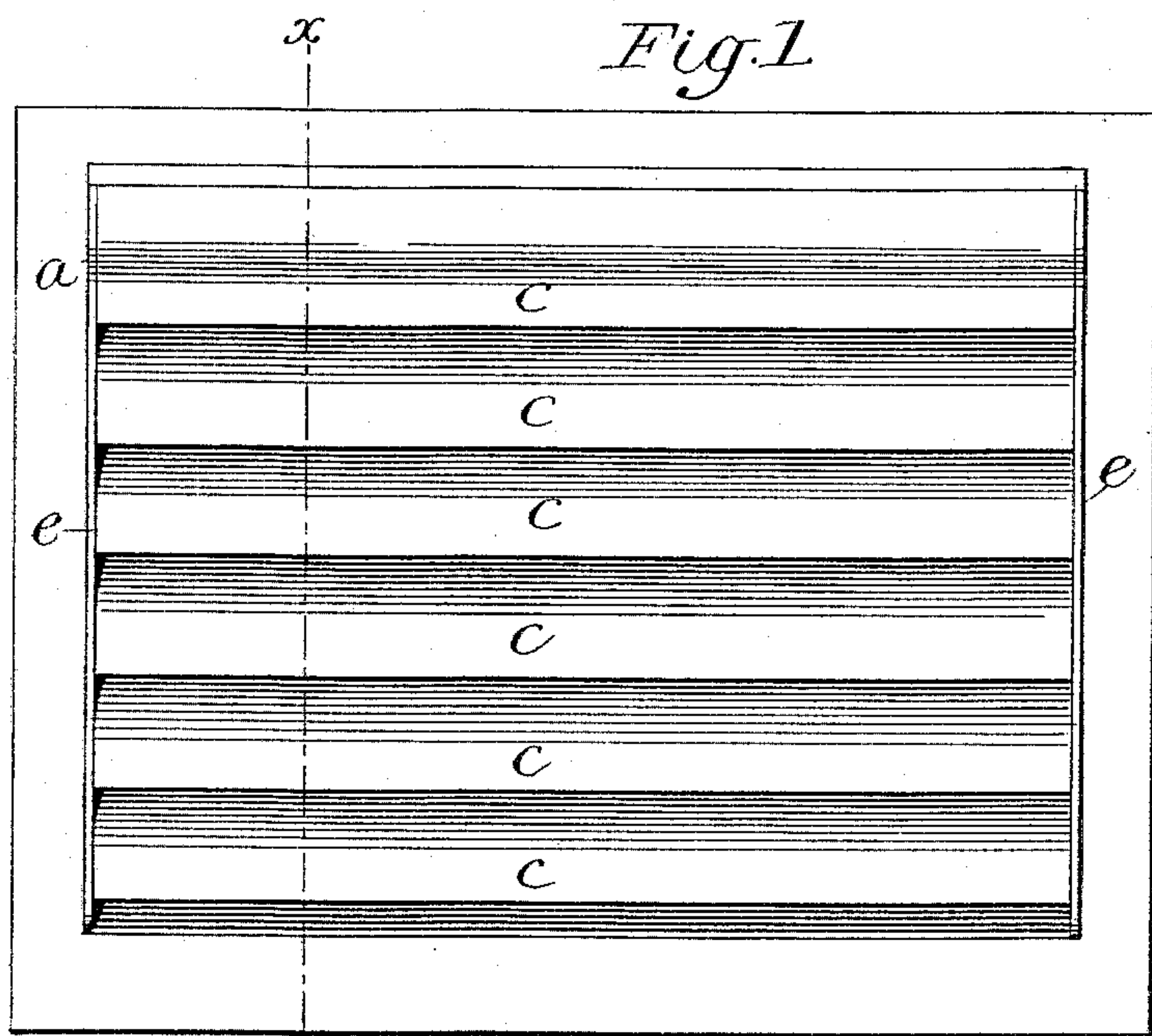


Fig. 3.

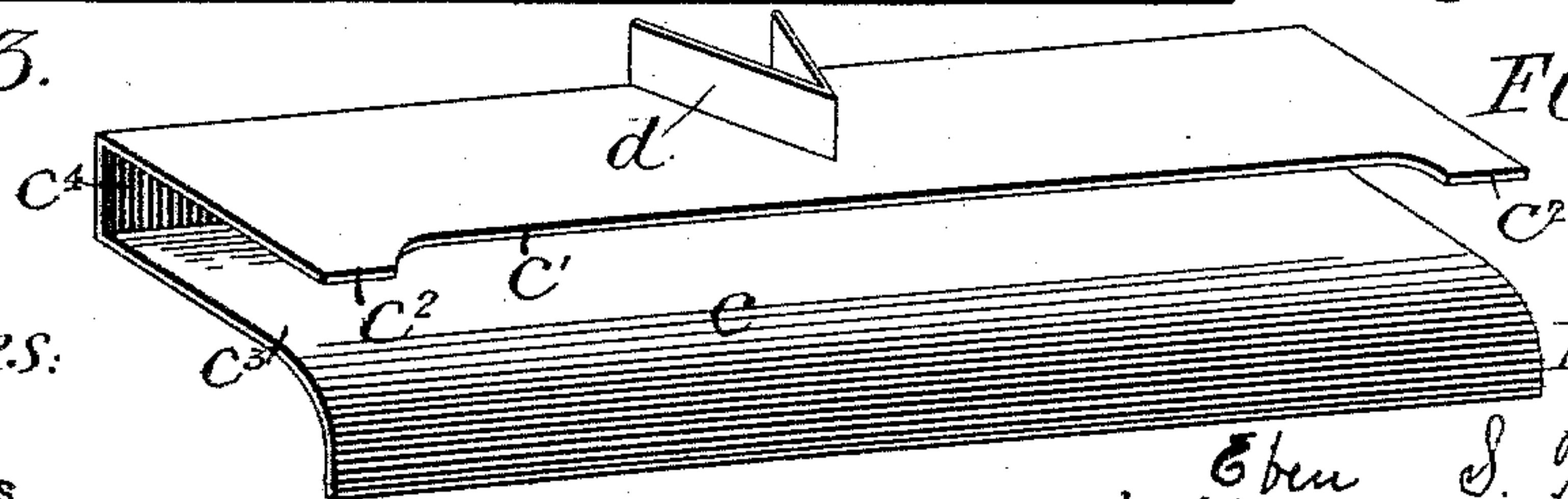


Fig. 5.

Witnesses:
J. R. Smith
J. Andrews

Inventor:
Eben S. Perry
by H. W. Mason, atty

UNITED STATES PATENT OFFICE.

EBENEZER S. PERRY, OF NEW BEDFORD, MASSACHUSETTS.

CAR-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 597,019, dated January 11, 1898.

Application filed May 21, 1897. Serial No. 637,632. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER S. PERRY, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Car-Ventilators, of which the following is a specification.

The object of my invention is to provide a car-ventilator that will separate the foreign matter—such as dust, cinders, &c.—from the outside air as it passes through the ventilator into the car, while it allows the egress of foul or heated air from within the car.

To this end my invention consists in the arrangement and combination of certain peculiarly-shaped planes and surfaces with regard to each other and in providing certain openings through them.

The accompanying drawings illustrate my invention, in which—

Figure 1 is a front view of my improved car-ventilator. Fig. 2 is an end view of the same. Fig. 3 is a rear view. Fig. 4 is a view in cross-section through the dotted line X X of Fig. 1, and Fig. 5 is a view in perspective of one of the peculiarly-shaped planes and surfaces which compose the main portion of the ventilator.

Similar letters refer to like parts in the several views.

The letter *a* indicates the base of the ventilator, which is preferably composed of a sheet of metal and is provided with the narrow longitudinal apertures *a'*.

c indicates a sheet of metal bent into the forms shown in Figs. 4 and 5, having its upper plane cut away, as at *c'*, and provided with the angular plate *d*, secured to the upper surface thereof and having its apex pointing outwardly. The parts *c* are secured by their edges *c¹* to those portions of the base *a* lying between the longitudinal apertures *a'*, the under side of the lower plane *c³* resting on the angular plate *d* and the points *c²* reaching to and secured to the curved portion of the plane next above it.

e e are end pieces secured to the ends of the parts *c* and to the base *a* and are provided with the apertures *e'*, which open into the space between the upper and lower planes of the parts *c*, as is clearly shown in Fig. 2.

The parts *c* are preferably longer than the apertures *a'*, as shown in dotted lines, Fig. 3.

In operation, the ventilator being secured in proper position on a car and the car being in rapid motion, a current of air sweeps across the face of the ventilator and enters the same under the curved edges of the parts *c* and between the upper and lower planes of the parts *c*, where any dust or cinders with which it may be loaded is deposited, while the clear air rises through the opening formed by the edge of the upper plane being cut away and enters the car through the apertures *a'* in the direction shown by the arrows. As the air enters the space above the upper plane of the parts *c* and by the motion of the car is swept longitudinally of the ventilator, it strikes the inclined sides of the plates *d* and causes a strong outward draft in the forward part of the ventilator and an inward draft in the rear part of the same.

It will be observed that the parts *c* project outwardly and downwardly, and that the combination and arrangement of the surfaces and planes with regard to each other and the corners formed between the ends of the apertures *a'* and the ends of the parts *c* cause a series of eddies in the current of air entering the ventilator, which eddies cause the dust and cinders contained in said air to be deposited on said planes and surfaces. The planes of the parts *c* projecting outwardly and downwardly the dust and cinders deposited on them falls out of the ventilator by its gravity or is swept therefrom by the current of air which enters and emerges through the forward and rearward openings *e'*.

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

1. In a ventilator, the combination of the base *a*, having narrow longitudinal apertures *a'*; the parts *c*, secured to said base, between said apertures; and the sides *e*, having openings *e'* secured to the ends of the parts *c*, and to the base *a*, when arranged substantially as, and for the purpose shown and described.

2. In a ventilator, the combination of the base *a*, having narrow longitudinal apertures *a'*; the parts *c*, of greater length than said apertures, secured to said base between said ap-

ertures; and the sides *e*, having openings *e'*, when arranged substantially as shown and described.

3. In a ventilator, the combination of the
5 base *a*, having narrow longitudinal apertures *a'*; the parts *c*, secured to said base between said apertures; the angular plates *d*, secured

to the upper plane of the parts *c*, and the sides *e*, when arranged substantially as shown and described.

EBENEZER S. PERRY.

Witnesses:

HENRY W. MASON,
J. R. SMITH.