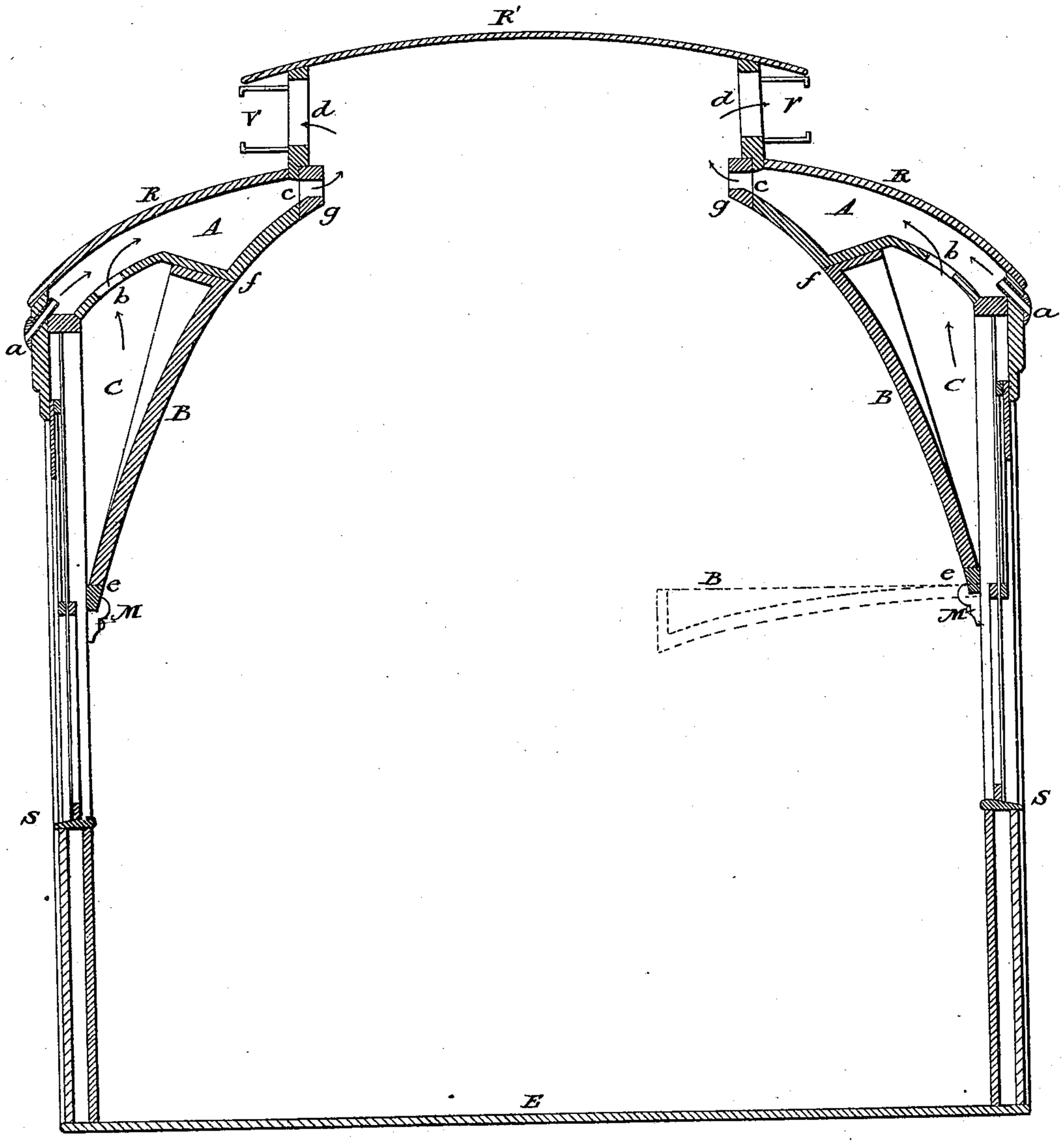
(No Model.)

C. E. LUCAS.
Sleeping Car.

No. 236,445. Patented Jan. 11, 1881.



Attest.

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UNITED STATES PATENT OFFICE.

CHRISTIAN E. LUCAS, OF ATLANTA, GEORGIA.

SLEEPING-CAR.

SPECIFICATION forming part of Letters Patent No. 236,445, dated January 11, 1881.

Application filed November 22, 1880. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN E. LUCAS, of Atlanta, in the State of Georgia, have invented certain new and useful Improvements in the Construction of Sleeping-Cars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which form a part of this specification.

The drawing represents a vertical cross-section of a sleeping-car having my improved construction.

Corresponding parts on the two sides of the car are indicated by similar letters of reference.

My invention relates to the construction of the upper berth and framing of the car, and has for its object to improve the ventilation of the car and berth, and to give a more lofty and elegant appearance to the interior of the car.

The invention consists in the location of an air-chamber provided with suitable inlet and outlet ventilating-apertures between the main roof of the car and its ceiling and above the upper berth, and in giving to the inner face of said chamber and to the lower side of the berth a peculiar inclination and curvature, both said parts uniting in the formation of a single unbroken springing curved line beginning at the molding which supports the lower edge of the berth and terminating in the clear-story of the car, all as hereinafter more specifically set forth.

In the accompanying drawing, E marks the floor of the car; S S, its sides; R, the main roof, and R′ the roof of the clear-story.

Under the roof R, I form an air-chamber, A, having the shape shown, and provided with the air-inlet *a*, which admits the outer air, the air-passage *b*, which connects the air-chamber C, and the outlet *c*, which opens just below the mouth *d* of an exhaust-ventilator, V, attached to the side of the clear-story. I prefer to make this ventilator of the kind described in my Patent No. 220,628; but any efficient exhausting-ventilator will serve the purpose of my present device.

The berth B is supported at its lower edge, *e*, on the molding M, or in any usual manner. It is about two inches deep at the point *e* and about seven inches deep at its upper edge, *f*, and provided with end pieces of suitable form. The line of the face of the berth from *e* to *f* inclines toward the middle of the car, as shown, and forms a continuous springing curve with the line *f g* of the face of the chamber A. By this inward inclination of line *e f* and its production to *g*, I obtain the necessary space in the upper angle of the car for the location of the air-chamber, and for the accommodation of the bedding when the berth is closed.

When in use the berth occupies the position shown in dotted lines in the drawing.

The effect of the construction is, that air enters from without at the inlet *a*, passes through the air-chamber A, and escapes through outlets *c* and *d* and the exhausting-ventilator V at the top of the car. An induced current flowing through *b* carries off the vitiated air from the upper berth, while its occupant is entirely protected from the external draft.

When the berth is closed the ventilating arrangement secures the general ventilation of the car in the same advantageous manner, and also tends to air and keep dry the bedding stored in the space C.

The ornamental effect of the upward-springing curve *e g* upon the appearance of the interior of the car is obvious upon inspection.

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

1. The berth B, having the curved face *e f*, in combination with the chamber A, having the similarly-curved face *f g*, both constructed and arranged substantially as described, for the purpose set forth.

2. The combination, with a railway-car, of an air-chamber located beneath the main roof on either side, as shown, and communicating with the outer air and the interior of the car by inlet and outlet apertures and an ex-

hausting-ventilator, all substantially in the manner and for the purpose specified.

3. The combination, in a sleeping-car, of the berth B, chamber A, air-passages *a b c d*, and exhausting-ventilator V, all constructed and operating substantially in the manner described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

CHRISTIAN E. LUCAS.

Witnesses:

CHAS. H. WILLIAMS,

G. H. TANNER.