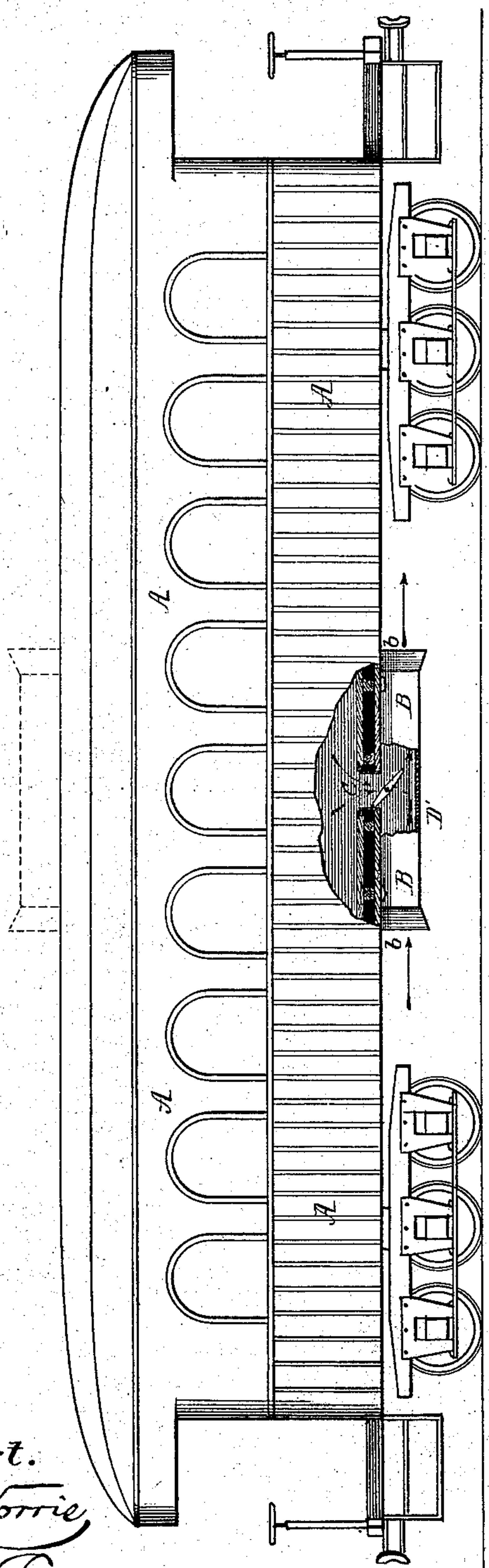


L. STERNE.
Dust-Ejectors.

No. 156,605.

Patented Nov. 3, 1874.

Fig. 1.



Attest.
A. H. Norrie
J. S. Doombg

Fig. 3.

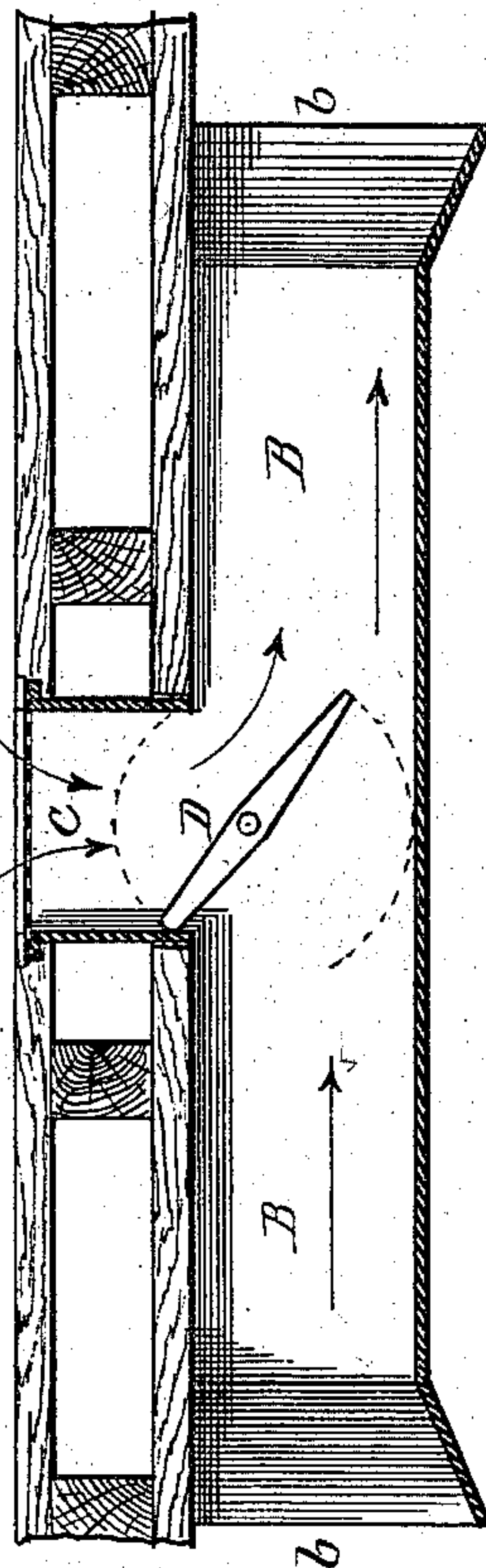
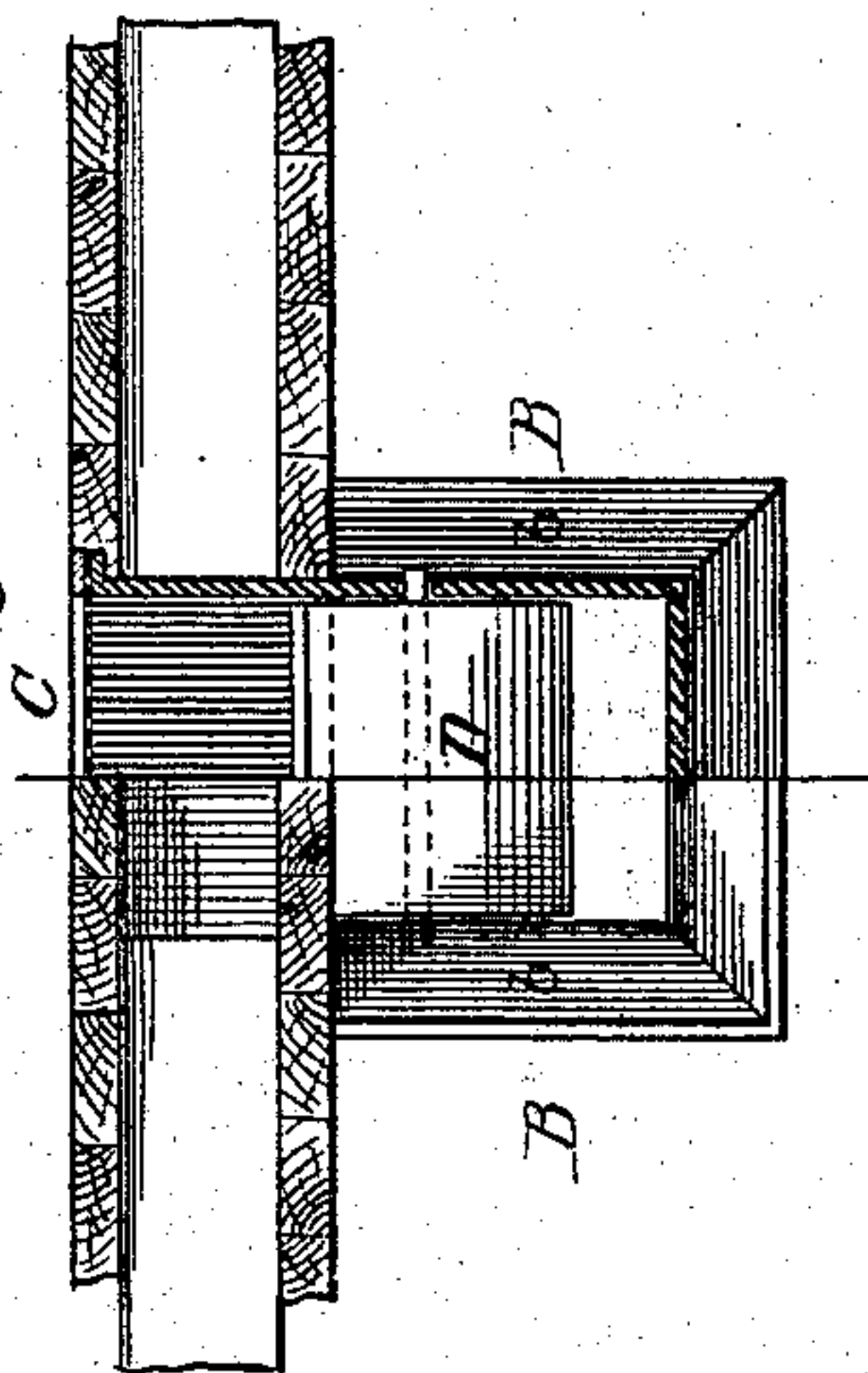


Fig. 2.



Inventor.
L. Sterne.
By James L. Norrie,
Atty.

UNITED STATES PATENT OFFICE.

LOUIS STERNE, OF LONDON, ENGLAND.

IMPROVEMENT IN DUST-EJECTORS.

Specification forming part of Letters Patent No. **156,605**, dated November 3, 1874; application filed October 20, 1874.

To all whom it may concern:

Be it known that I, LOUIS STERNE, C. E., of London, England, have invented certain new and useful Improvements in Dust-Ejectors, of which the following is a specification:

My invention relates to a new and improved means of ventilating cars and other traveling vehicles, by means of a current or draft of air through the same, induced by the motion of the car or other vehicle; and it consists in providing the car or vehicle at any convenient point with a box or tube communicating with the interior of the car at its center, and with flaring or trumpet-shaped ends facing the front and rear of the car. At the center of such tube, where it communicates with the car, a valve is arranged to work automatically, so as to change the direction of the current from the car to adapt the device to work properly in whatever direction the car is moved. The current of air which is induced by the rapid motion of the car, through the tube or box, induces a current through the car, as will be hereinafter described, and thoroughly ventilates the same, removing dust, cinders, smoke, &c, and insuring a constant supply of fresh air in the car.

In the drawings, Figure 1 shows an ordinary car, with a portion cut away, showing my improved device in section. Fig. 2 represents an enlarged end view of the device, partly in section; and Fig. 3, an enlarged horizontal section of the same.

A represents the car, constructed in the ordinary manner, and B the box or tube secured under the bottom or flooring of the same, at or about the center of the car. C represents a short tube extending upward at right angles to the tube B, through the flooring of the car, and terminating flush with the upper surface

of the same, where it is provided with a register, a perforated plate, or other equivalent device. Immediately below the said tube C, midway between the two ends of the tube B, is pivoted a valve, D, of such length that the upper side of the same will fall against either side of the tube C, as occasion may require, the said valve being so set that its lower end will clear the bottom of the tube, leaving a space for the passage of air, as shown in Figs. 1 and 2. The front and rear ends of the tube B are made flaring or trumpet-shaped, in order to more readily take the air, as indicated at *b b*.

The operation of my invention will be readily understood from the above description. When the car is put in motion a current of air is induced through the tube B, in a direction opposite to the direction in which the car is moving, as indicated by the straight arrows. This will automatically set the valve D in proper position, the current of air in passing through the tube C, as indicated by the curved arrows, exhausting the air in the car, which must be supplied by fresh air from the outside.

What I claim is—

The valve D, having a centrally-located axis seated within the tube or way B, directly beneath the center of the vertical tube C, which communicates with the interior of the car or vehicle, said valve being so set as to clear the bottom of the tube B when oscillated, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand.

L. STERNE, C. E.

Witnesses:

ALBERT H. NORRIS,
JAMES L. NORRIS.