

B. T. BABBITT.

Car Heater.

No. 12,306.

Patented Jan. 30, 1855.

Fig. 1.

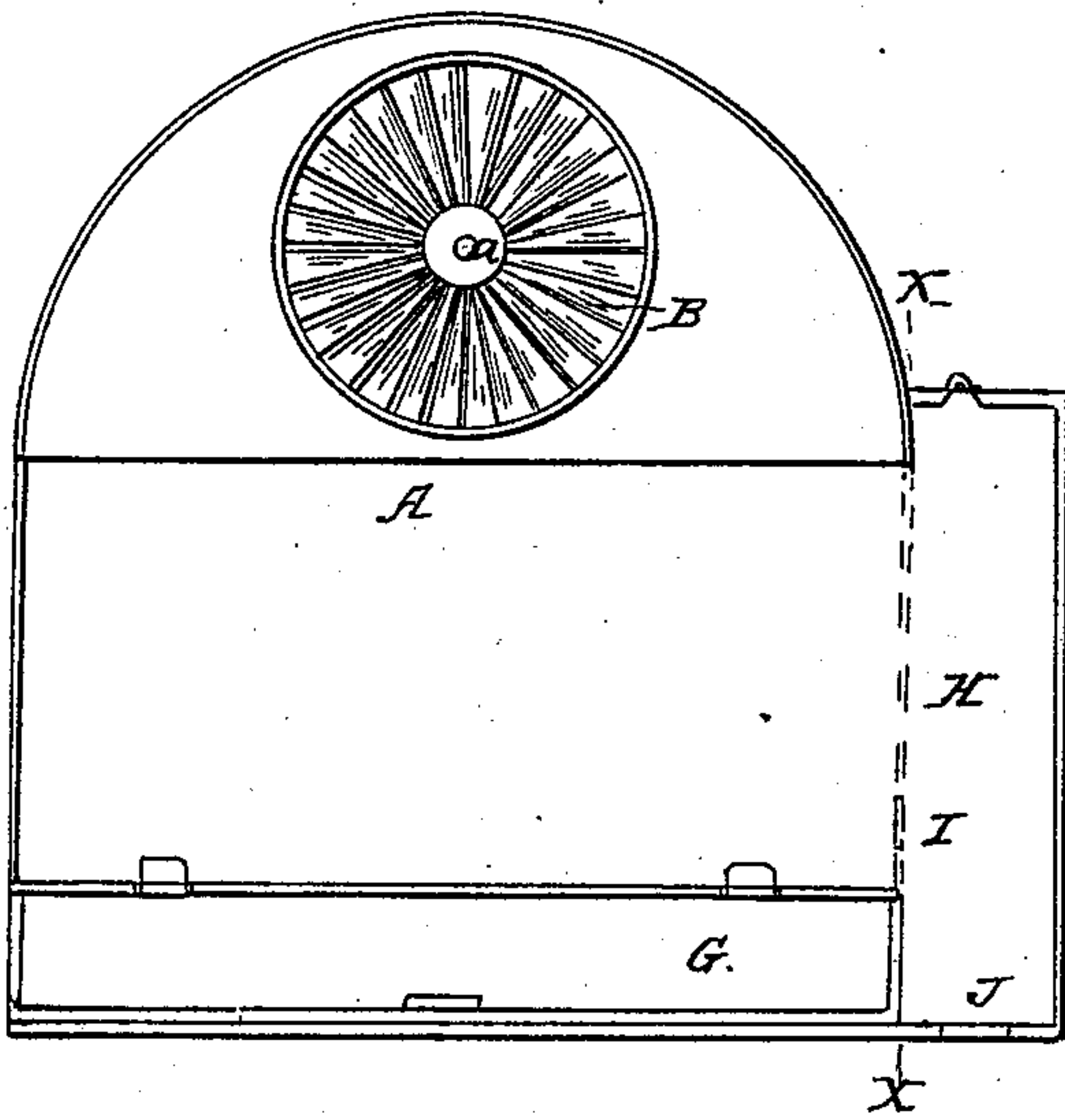


Fig. 2.

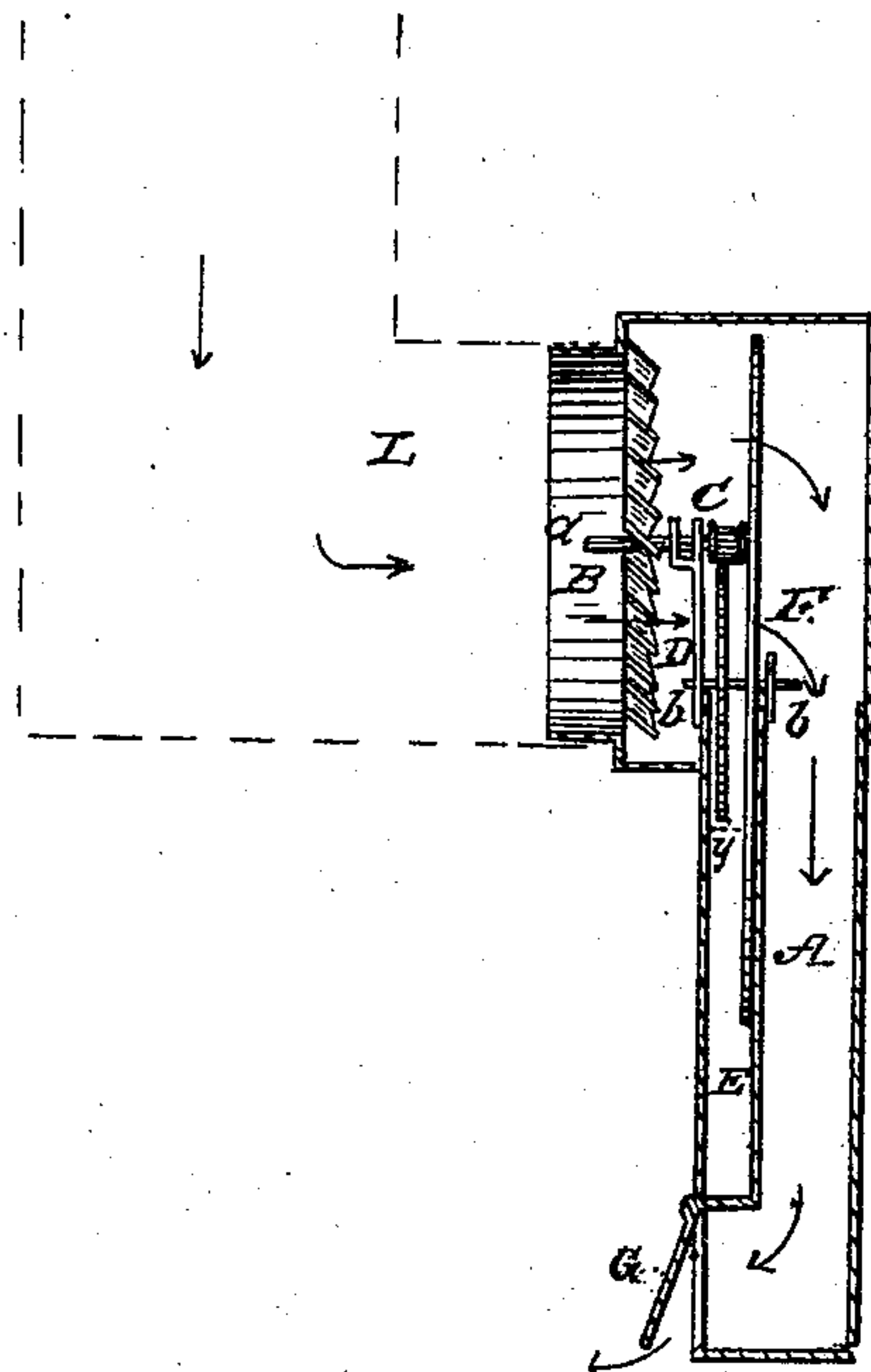
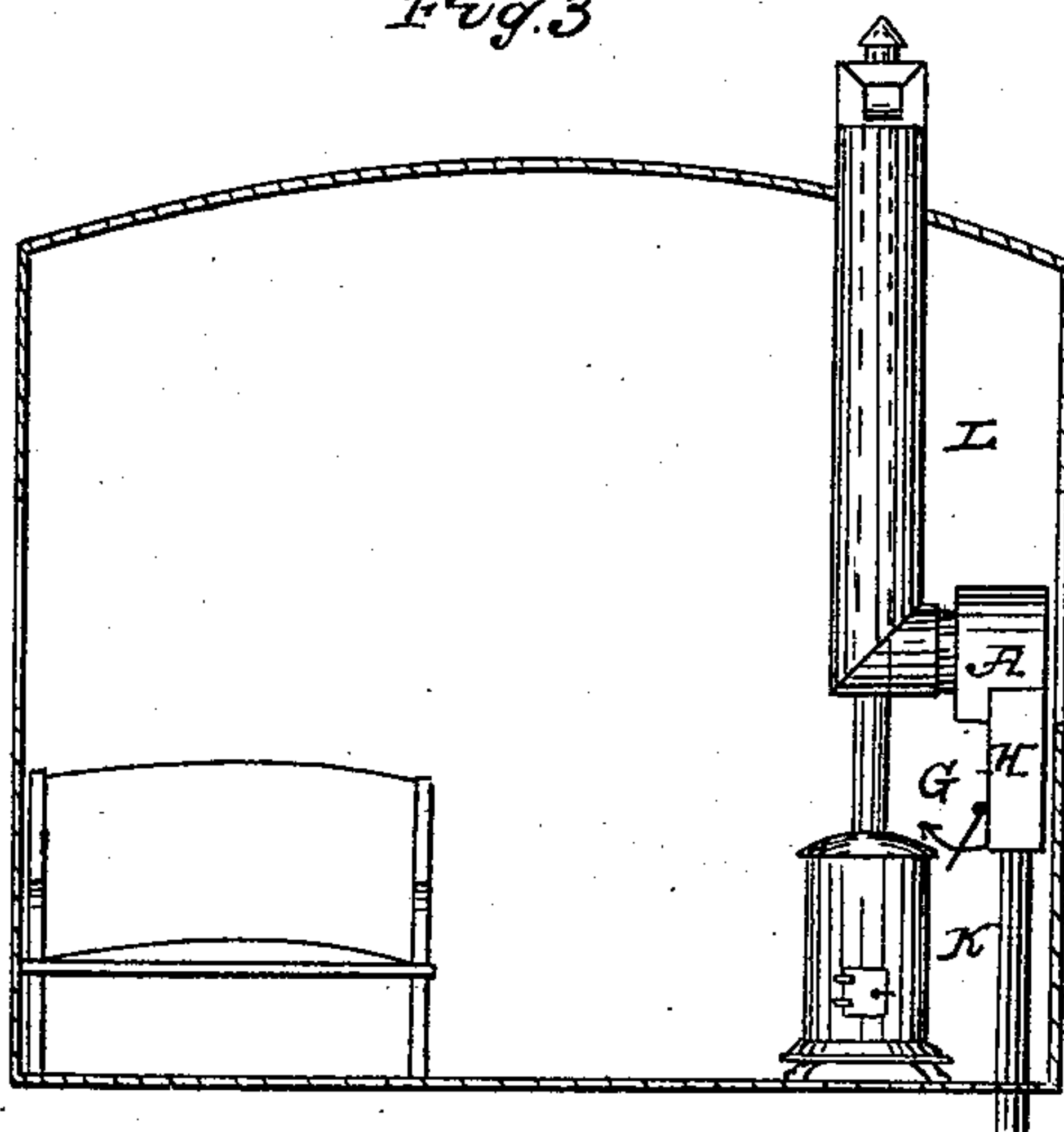


Fig. 3.



UNITED STATES PATENT OFFICE.

B. T. BABBITT, OF NEW YORK, N. Y.

CAR-VENTILATOR.

Specification of Letters Patent No. 12,306, dated January 30, 1855.

To all whom it may concern:

Be it known that I, B. T. BABBITT, of the city and county of New York and State of New York, have invented a new and Improved Car-Ventilator; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my improved ventilator. Fig. 2, is a transverse vertical section of do. *x, x*, Fig. 1 shows the plane of section. Fig. 3, is a transverse section of a railroad car, showing the application of my improvement.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved ventilator for railroad cars, whereby the air that enters the cars is cleansed or freed from dust, cinders etc.

The nature of the invention consists in causing the air previously to its entering the cars to come in contact with or pass through a moistened screen formed of any proper material, said screen being kept moist by a wind mill put in motion by the air during its passage into the cars. The air by coming in contact with, or in passing through the moistened screen, is deprived of all dust and cinders and rendered perfectly fit for respiration.

To enable others skilled in the art to make and apply my invention, I will proceed to describe its construction and operation.

A represents a chamber or box constructed of sheet metal having at its upper part on one side a circular aperture in which a wind-mill B is fitted. The shaft (*a*) of the wind-mill has a pinion C upon it, which pinion gears into a toothed wheel D, the axis (*b*) of which, is placed at the upper part of a water chamber E within the box or chamber A, see Fig. 2. On the axis (*b*) of the toothed wheel D there is hung a circular screen F formed of wire cloth or any other proper material. The lower part of this screen is within the water chamber E as shown in Fig. 2, and consequently is immersed in water, (*y*) representing the water line.

At the bottom of the chamber of box A and underneath the water chamber E there is a door or flap G for the purpose of allow-

ing the air to enter the car as will presently be described.

H is a chamber or box adjoining one end of the chamber or box A. This chamber H communicates with the water chamber E by means of an aperture I, see dotted lines in Fig. 1.

At the bottom of the chamber or box H there is an aperture J which receives a waste pipe K as shown in Fig. 3.

L, see Fig. 3 and dotted lines in Fig. 1, is a pipe one end of which covers the aperture in which the wind mill B is fitted. The opposite end of this pipe passes through the top of the car as shown in Fig. 3.

Operation: When the car is in motion the air passes down the pipe L and acts upon the wind mill B causing it to rotate and also the screen F in consequence of the pinion C and toothed wheel D. The air passes through the screen F and in so doing is deprived of all dust in consequence of the moistened state of the screen, it being remembered that the screen is in contact with the water in the water chamber E. The air after passing through the screen continues downward and passes out into the car at the door or flap G at the lower part of the chamber or box A, see arrows Fig. 2.

The chamber or box H at the end of the chamber or box A is for the purpose of supplying the chamber E with water and the pipe K at the bottom of the chamber E is for the purpose of drawing off the water from the chamber E when it becomes foul.

During the winter months the apparatus may be placed near the upper part of a stove, and the stove pipe may pass through the air pipe, see Fig. 3, for the purpose of heating the air previously to its entering the car.

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

The arrangement of a wind wheel as herein described in connection with a wire gauze disk or screen revolving in a tank of water, the air passing through the said disk previous to entering the car, in the manner and for the purpose herein set forth.

B. T. BABBITT.

Witnesses:

A. R. HAIGHT,
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