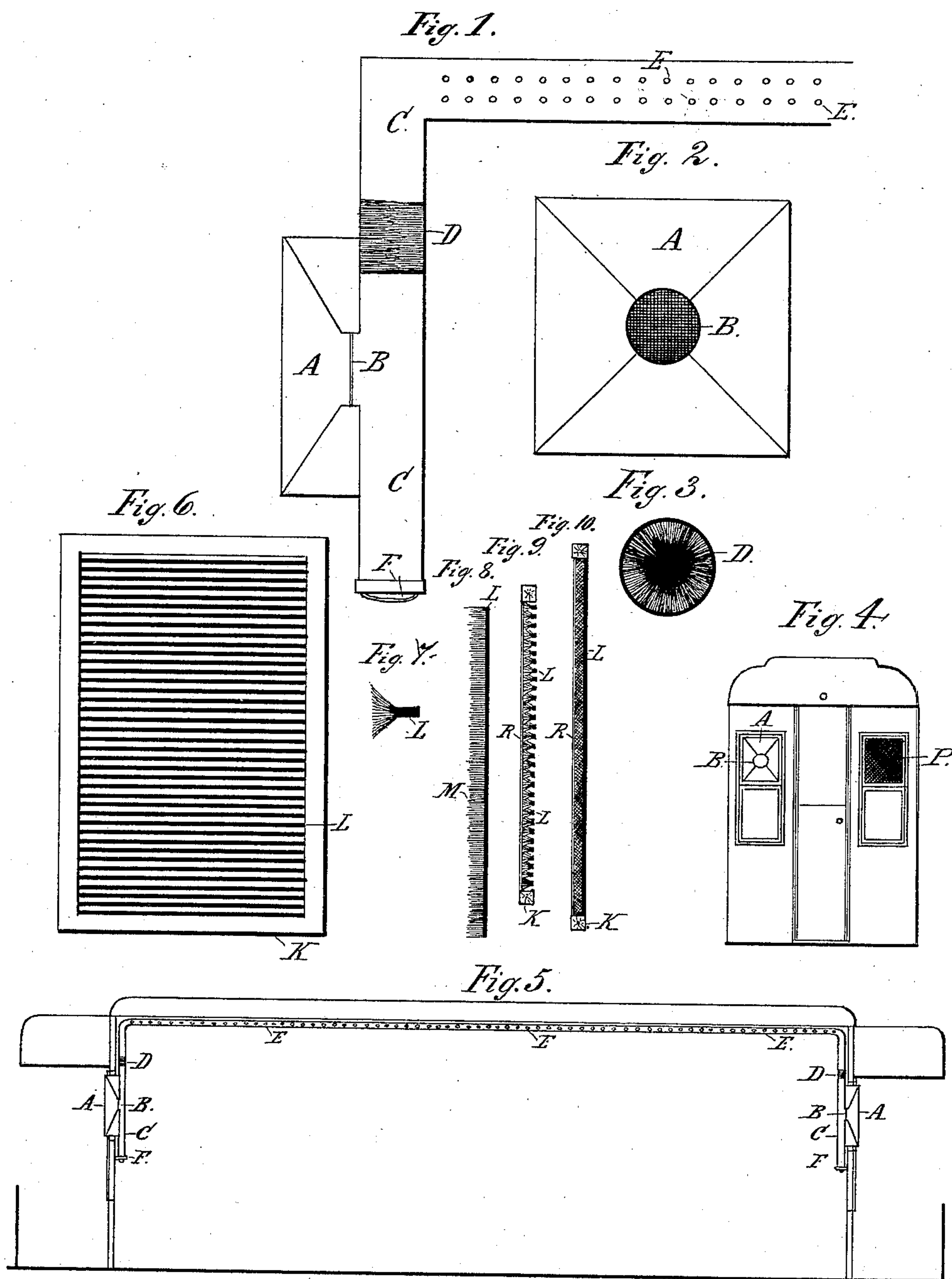


(No Model.)

B. M. TURNBULL.  
VENTILATOR.

No. 409,525.

Patented Aug. 20, 1889.



WITNESSES,

*Helmutt Holtz*  
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# UNITED STATES PATENT OFFICE.

BRISBANE M. TURNBULL, OF SCRANTON, MISSISSIPPI, ASSIGNOR OF ONE-THIRD TO BROWNLEE WICKLIFFE TAYLOR, OF NEW ORLEANS, LOUISIANA.

## VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 409,525, dated August 20, 1889.

Application filed April 5, 1889. Serial No. 306,132. (No model.)

*To all whom it may concern:*

Be it known that I, BRISBANE MARSHAL TURNBULL, a citizen of the United States, residing at Scranton, in the county of Jackson and State of Mississippi, have invented certain new and useful Improvements in Ventilators; and I do 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 has relation to improvements in devices for ventilating railway-cars and collecting and removing dust from the air admitted; and the novelty will be fully understood from the following description and claim, taken in connection with the annexed drawings, in which—

Figure 1 is a side view of a portion of my improved device removed from the car. Fig. 2 is a front view of the entrance portion. Fig. 3 is an interior view of the main pipe, showing the circularly-arranged brush therein. Fig. 4 is an end view of a car with my improvements applied. Fig. 5 is a view of the railway-car, showing my improvements in side elevation therein. Fig. 6 is a view of one of the screens removed from the car. Fig. 7 is a detail view of one of the lags or brushes which I employ on the inner side of the screen. Fig. 8 is a side elevation of one of the brushes. Fig. 9 is a view of one of the brushes and screens in position, and Fig. 10 is a similar view.

Referring by letter to the said drawings, E indicates a pipe, which is provided with numerous perforations and has at opposite ends a downwardly-directed branch C, which is designed to extend a sufficient distance down the end walls of a car, on the inner side thereof, and carry at their lower ends a removable cap F. The pipe E, which is a continuation of the branch of C, assumes a position on the inner side of the car, and preferably along the ceiling.

A indicates an entrance, which is of a flaring form. This flaring entrance communicates with the vertical branches C of the pipe, and has a screen B at its contracted

portion or point of communication with the said pipe C, the flaring mouth or entrance portion A being arranged upon the outside of the end walls of the car, so as to collect the air or atmosphere during the travel of the train.

D indicates a brush, which may be of wire, hair, or other suitable material. This brush is arranged within the vertical branches C of the pipe at a sufficient point above the flaring mouth or entrance, and is designed to remove cinders and other impurities, which drop to the bottom of the said branch C, and may be removed by taking off the cap F. With a device of this construction a car or train of cars may be thoroughly ventilated by the admission of pure air, and foul and impure air which arises in the car carried off and discharged by suction through the perforations in the pipe E.

P indicates a screen, which I arrange in the end wall of a car on the side opposite my ventilating device. This screen is backed by brushes L, so that any impurities which may enter the screen will be checked by the brushes, the screen being held in a suitable frame K.

From the foregoing description, taken in connection with the annexed drawings, the operation and advantages of my invention will be obvious.

Having described my invention, what I claim is—

The car-ventilator consisting of a perforated pipe extending from end to end of the car and having a downward imperforated extension at each end thereof, said extensions being each provided with a brush therein, a removable cap at the open end thereof, and a flaring air-collector located between the brush and the cap and provided with a screw, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

BRISBANE M. TURNBULL.

Witnesses:

EMILE R. CHEVALLEY,  
EDWARD V. FASSMANN.