No. 814,620. PATENTED MAR. 6, 1906.

E. L. PARRISH.

VENTILATING APPARATUS.

APPLICATION FILED JUNE 17, 1903.

FIG. 1.

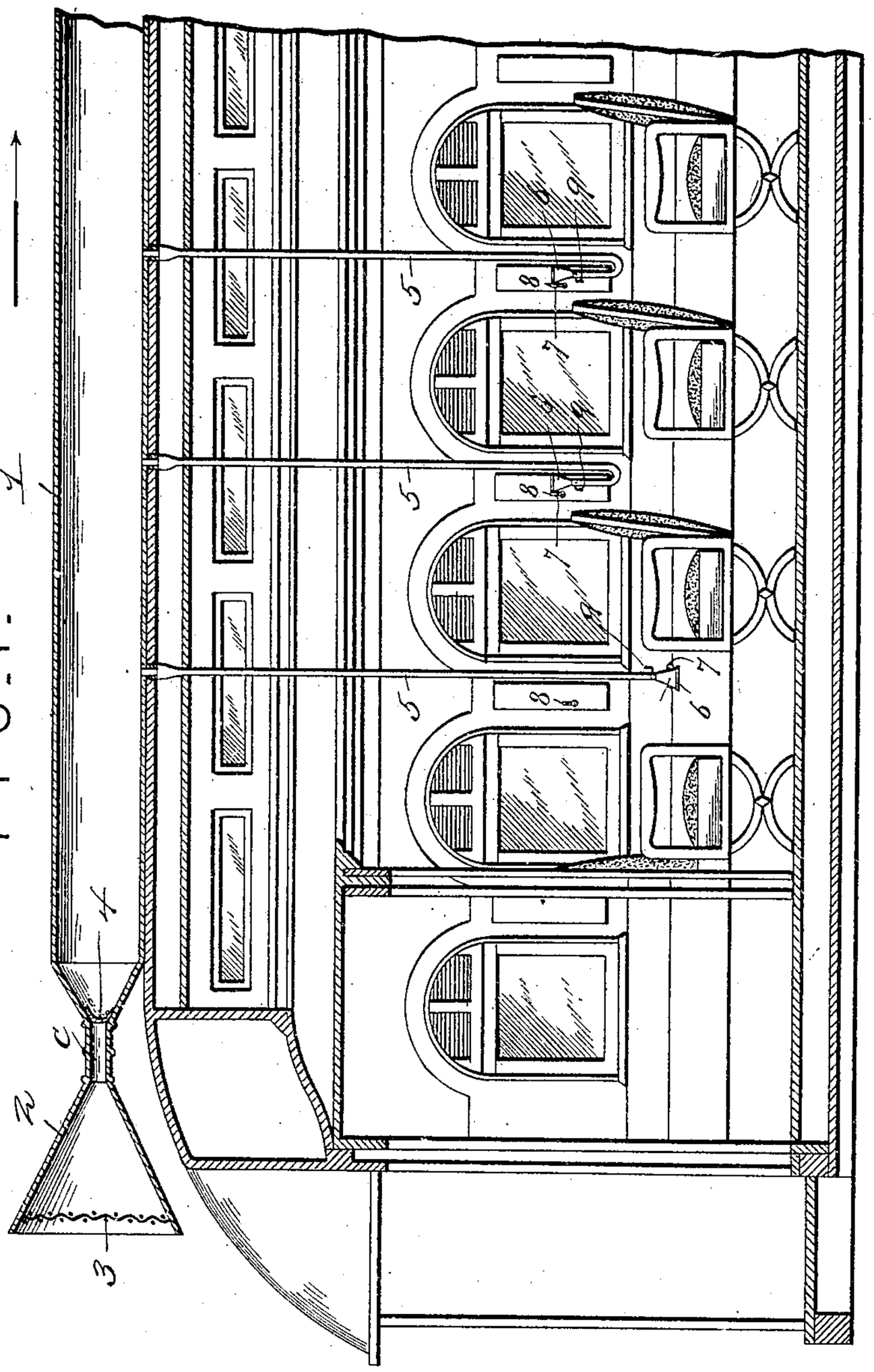
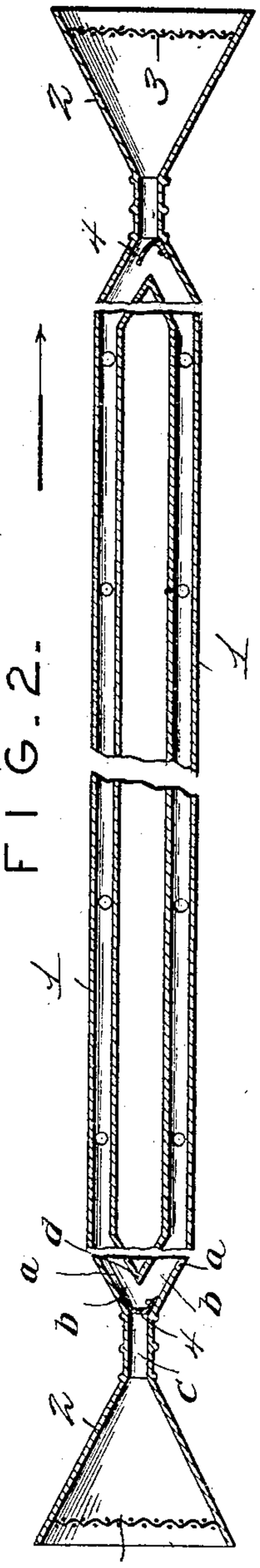


FIG. 2.



Witnesses

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EZEKIEL L. PARRISH, OF CROCKETT, TEXAS.

VENTILATING APPARATUS.

No. 814,620. Specification of Letters Patent. Patented March 6, 1906.

Application filed June 17, 1903. Serial No. 161,854.

To all whom it may concern:

Be it known that I, EZEKIEL L. PARRISH, a citizen of the United States, residing at Crockett, in the county of Houston and State of Texas, have invented new and useful Improvements in Ventilating Apparatus, of which the following is a specification.

My invention relates to new and useful improvements in ventilating apparatus for railway-cars; and its object is to provide means whereby air may be supplied to the interior of a car in desired quantities, thereby permitting the windows to be closed to exclude the dust, smoke, &c., without at the same time cutting off the supply of fresh air; and the invention consists in the construction and arrangement of parts, as will hereinafter be described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a longitudinal vertical section through one side of a portion of a car, and Fig. 2 is a horizontal section through the air-receiving tubes and their inlets.

Referring to the figures by numerals of reference, 1 1 are parallel tubes which extend longitudinally of the top of the car near each side thereof, and these tubes communicate adjacent their ends and open into funnel-shaped inlets 2, preferably provided with screens 3 in their open ends. The parallel tubes 1 are narrow in cross-sectional extent, but have a considerable vertical dimension. The advantage of this construction is that the air entering said tubes is compressed to a certain degree between the contiguous sides of each tube and will be delivered from the bottoms of the tubes by means hereinafter explained with more force and result advantageously in creating a greater circulation within the car. Valves 4 are arranged at the inner ends of the inlets 2 and are preferably formed of leather or other flexible material. These valves are adapted to open automatically when air-pressure is brought thereagainst through one of the inlets 2, but automatically close when pressure is brought thereagainst through the pipes 1. Extending downward from each pipe 1 is a series of flexible tubes 5, the lower ends of which are provided with outlets 6, preferably funnel-shaped and having eyes 7, whereby they may be readily suspended from hooks 8, located at suitable points within the car. A valve 9 is arranged within each tube 5, and by means thereof the supply of air discharged from the outlet 6 may be readily regulated.

It will be understood that when the car is moving in one direction air will be received into the forward funnel-shaped inlet 2 and the valve 4 at the inner end of said inlet will automatically open and permit air to flow into the tubes 1. The other valve 4 will be automatically closed by the air entering the tubes. The air will be directed downward through the tubes 5 and outlets 6 and the quantity discharged through the outlets may, as is obvious, be regulated by means of the valves 9. It will of course be understood that it is necessary to provide a suitable outlet within the car in order to render this operative. It is sufficient, however, to open a window at the rear end of the car, or, if desired, an air-outlet may be arranged at each end of the car and opened or closed as desired. The screens 3 serve to prevent the admission of dust and other objectionable particles to the tubes 1 and 5. If desired, any preferred means may be employed for preventing the admission of smoke to these tubes.

In order to reduce the number of air-inlets required to supply the tubes and adapt the tubes to coöperate at each end with a single inlet by which both of them are simultaneously supplied with air, the inner and outer walls of the tubes are made to converge at their ends, the outer walls being converged, as indicated at *a*, to form diverging passages *b*, leading to the adjacent ends of the tubes and communicating with a single conductor, whereby air is supplied thereto from the single inlet 2, while the converging inner ends of said tubes form a V-shaped deflector *d*, whose vertex faces the conductor *c*, whereby the air passing from the inlet-tube through the port or passage formed by said conductor is divided by the deflector *d* and caused to pass equally to the two tubes 1, by which means the efficiency of the apparatus is materially increased and the number of operating parts reduced.

Having thus described the invention, what is claimed as new is—

A ventilator for cars comprising parallel straight main tubes having converging ends, conductor-pipes secured one on each of the said converging ends of the tubes and having each an automatic inwardly-opening valve,

funnel-shaped inlets provided with reticulated material and secured one to the outer end of each conductor and arranged in line with the main tube, a series of flexible tubes depending from the main tube each provided with funnel-shaped outlets, and each having a valve therein, as hereinbefore specified.

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

EZEKIEL L. PARRISH.

Witnesses:
C. C. STOKES,
A. A. WALLER.