J. KNIPSCHEER.
Car Ventilation.

No. 212,475. Patented Feb. 18, 1879.

Fig. 1.

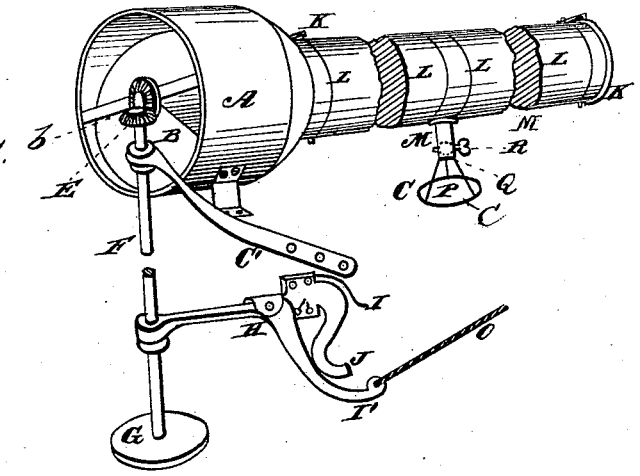
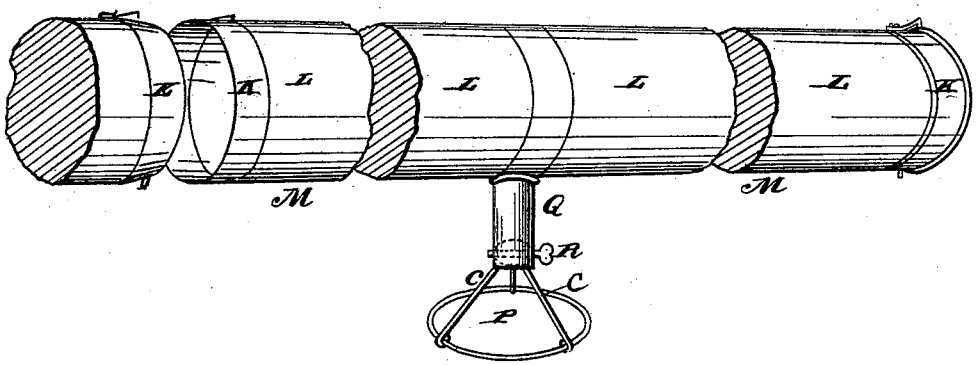


Fig. 2.



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JOHN KNIPSCHEER, OF WEIMAR, TEXAS.

IMPROVEMENT IN CAR-VENTILATION.

Specification forming part of Letters Patent No. **212,475**, dated February 18, 1879; application filed December 5, 1876.

To all whom it may concern:

Be it known that I, JOHN KNIPSCHEER, of Weimar, in the county of Colorado and State of Texas, have invented certain new and useful Improvements in Car-Ventilators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a view, in perspective, of a car-ventilating apparatus embodying the improvements in my invention; and Fig. 2 is a section of the main air-tube and the pipe, with valve and shield, leading into the car.

This invention has relation to car-ventilators; and it consists in the improvements in the construction of the same hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawings similar letters of reference indicate corresponding parts in the figures.

A tube, M, composed of sections L L, provided with couplings K, having a lug and a notch to prevent the sections from becoming disconnected, has a funnel, A, at its forward end. The funnel A projects in front of the locomotive, so that the supply of air furnished to the cars will be pure and entirely free from dust and smoke. The funnel A is provided with an internal bar, and a bar, *a*, at its front end, to furnish bearings for a rotary screw, B, The outer end of the shaft of this rotary screw B is provided with a miter-gear wheel, *b*.

A shaft, F, having bearings in braces C and H, secured to one side of the locomotive, has a miter-gear wheel, E, at its upper end, and a pulley, G, at its lower end. The lower brace, H, is pivoted in a bearing, I, secured to the boiler or side of the locomotive. This bearing I has a spring, J, secured to it, and said spring J bears against an arm, I′, forming part of the pivoted brace H, to hold the shaft F in position to cause the miter-wheels E and *b* to engage. The spring J at all times bears against the arm I′, holding the shaft F at the appropriate angle to permit the miter-gears E *b* to engage, for the purpose of operating the rotary screw B. Should the engineer for any reason desire to stop the rotary screw B, it is only necessary for him to draw upon the cord O, when the pivoted brace H will be moved through its arm I′, causing the shaft F to incline sufficiently to disengage the miter-gears E *b*. A rope, O, is connected with the arm I′, and is under control of the engineer for disconnecting the gear-wheels when desired.

The pulley G is connected with the axle of the locomotive in any suitable manner, for operating the rotary screw B. The tube M extends back over the roofs of the cars, and the several sections L L, with one of which each car is provided, are connected by the couplings K. Each section L is provided with a pipe, Q, having a valve, R, for transmitting the air from the main tube M to the interior of the car. Beneath the tube or pipe Q, and connected thereto by arms *c c*, is a shield or air-deflector, P. One or more pipes, Q, and deflectors, P, may be provided for each section L.

The operation of the invention is obvious. The rotary screw assists in drawing the air into the funnel A, and the motion of the cars induces a current, which carries the air back and causes it to descend into the cars, thereby thoroughly ventilating them. The air, being supplied from a point in front of the locomotive, is free from dust and smoke. The valves R may be set to regulate the current of air to be admitted to the cars.

I am aware that air-tubes have been attached to the roofs of cars, and also to the bottoms of the same, and that a current of air has been admitted to the cars through said tubes; also, that the air has been taken from a point in front of the locomotive. I am also aware that a fan or blower has been placed in the car to induce a current in the tubes. I do not seek in this application to cover either of these devices.

What I do claim, however, and desire to secure by Letters Patent of the United States, is—

In a car-ventilating apparatus, the combination of the rotary screw B within the funnel A with the miter-gear wheels *b* E and the shaft F G, adapted to be operated by mechanism connected with the axle of the locomotive, and the braces C H I′, spring J, and rope O, constructed and operating substantially as set forth.

JOHN KNIPSCHEER.

Witnesses:
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