

(No Model.)

L. C. TAPPEY, Jr. & C. A. EVANS.
CAR VENTILATOR.

No. 402,044.

Patented Apr. 23, 1889.

Fig. 1.

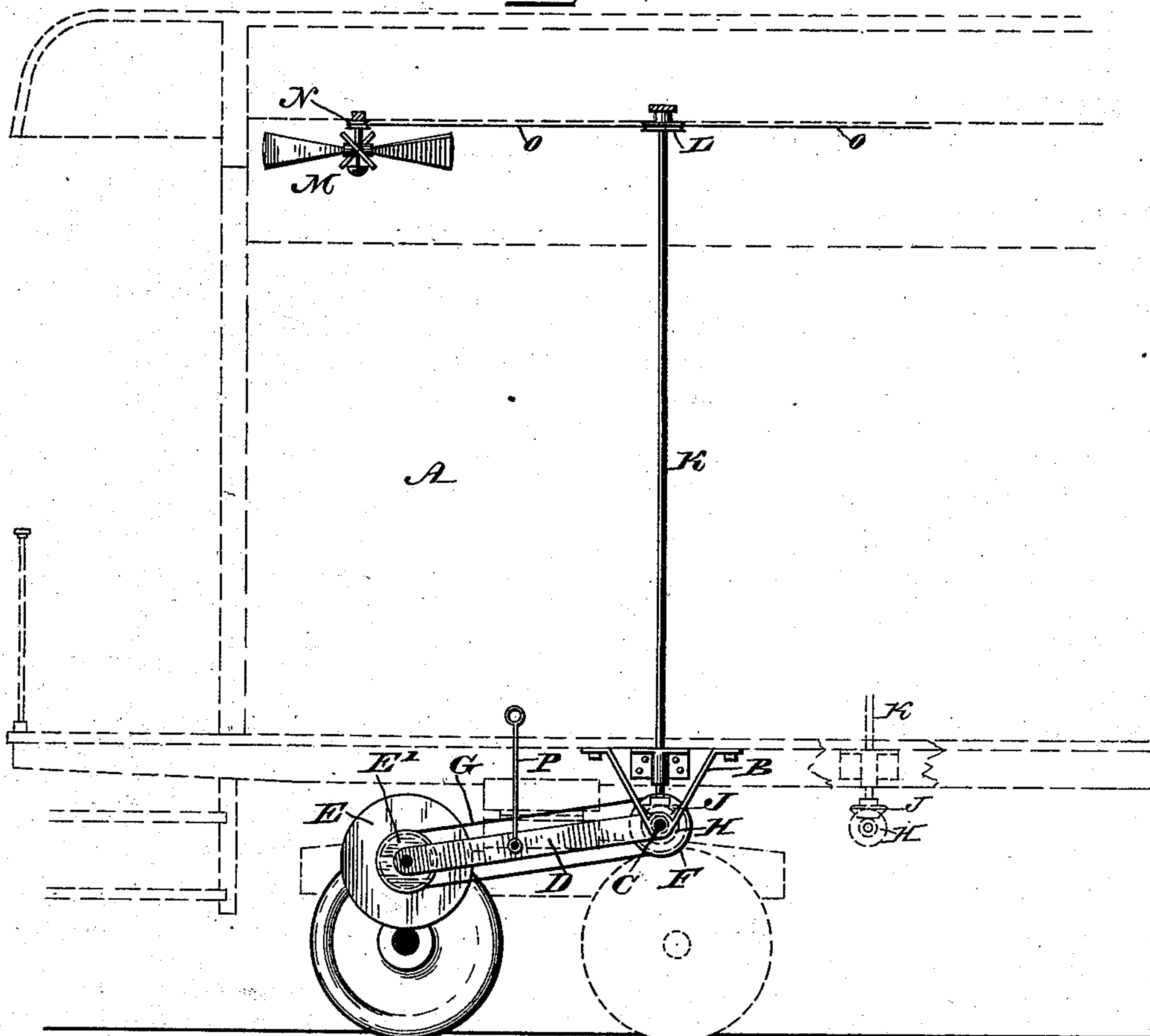
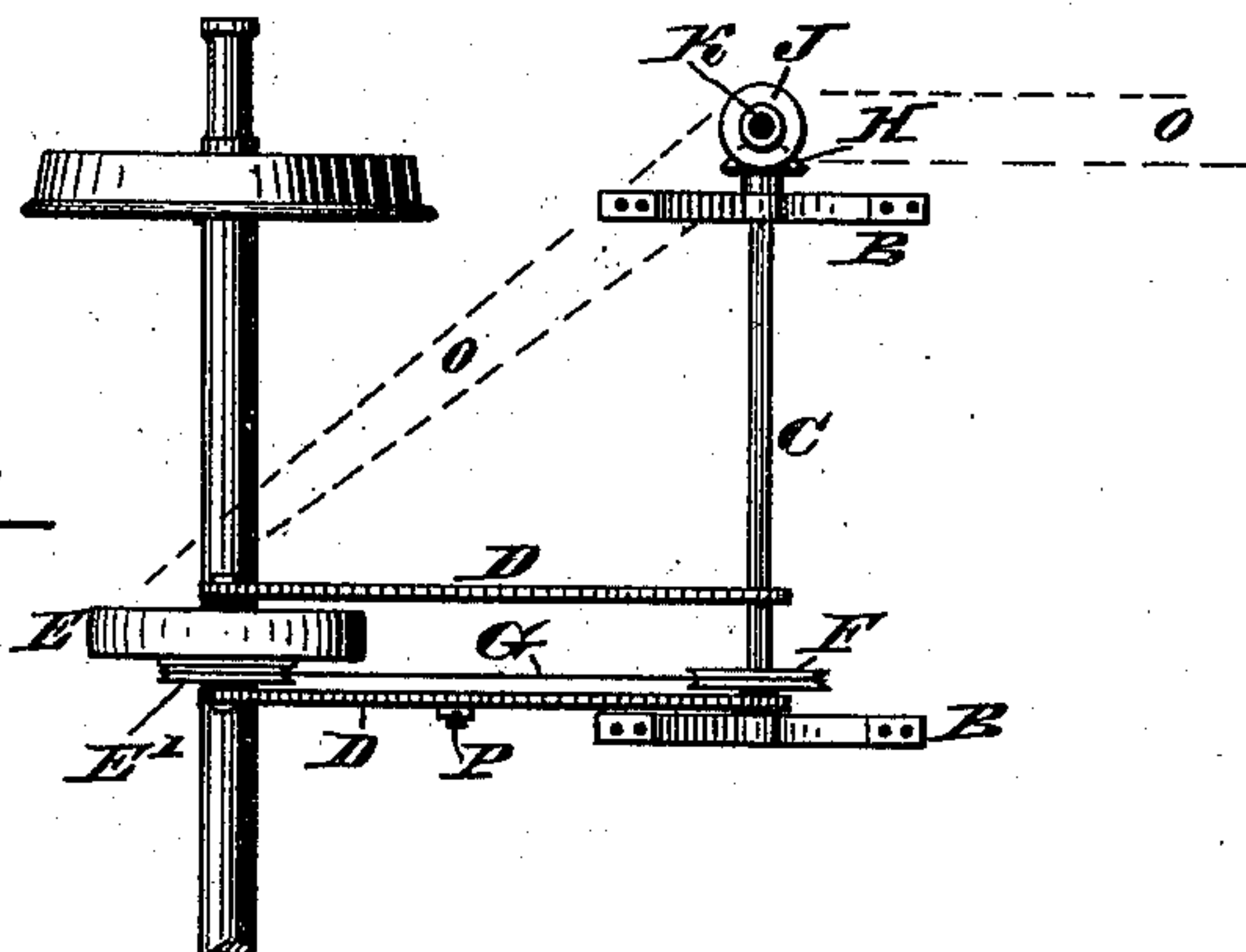


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LEOPOLD C. TAPPEY, JR., OF NEW YORK, N. Y., AND CLARENCE A. EVANS,
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CAR-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 402,044, dated April 23, 1889.

Application filed July 7, 1888. Serial No. 279,284. (No model.)

To all whom it may concern:

Be it known that we, LEOPOLD C. TAPPEY, Jr., a citizen of the United States, residing in the city, county, and State of New York, and
5 CLARENCE A. EVANS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Car-Ventilators, which improvement is fully set
10 forth in the following specification and accompanying drawings.

Our invention relates to improvements in mechanism for ventilating or cooling cars.

The primary object of our invention is to
15 provide mechanism for ventilating cars which will be operated by the axles thereof.

A further object is to provide mechanism of simple, strong, and durable construction, which will effectually ventilate the cars, and
20 which may be easily and cheaply applied to cars of any construction.

To attain these objects the invention consists of the combination of parts, herein set forth and claimed.

25 Figure 1 represents a side elevation, partly sectional, of a car-ventilator embodying our invention. Fig. 2 represents a top plan view of a portion thereof.

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

Referring to the drawings, A designates a car of any desired construction in connection with which we employ our mechanism.

35 B designates brackets or hangers depending from the under side of the car, in the lower end of which is journaled a shaft, C.

D designates arms loosely connected at their inner ends to the shaft forming a frame, and on their outer ends is journaled a friction-wheel, E, carrying a spool or pulley, E'.
40

F designates a pulley mounted on the shaft C, and over the pulleys E' and F passes a cord or band, G, which transmits the motion from the friction-wheel to the shaft.

45 H designates a bevel gear-wheel on the shaft C, meshing with a similar bevel-gear, J, on the shaft K, extending into the car. To the upper end of the shaft K is secured a pulley, L.

50 M designates fans carried by shafts journaled, preferably, in the top of the car and having pulleys N. Over the pulleys N and the pulley L passes a band or cord, O.

In order to throw the mechanism out of operation when desired, we employ the rod P, 55 connected with the frame D and extending into the car, by means of which the frame may be elevated, and consequently the friction-wheel released from contact with the axle. To retain the rod in an elevated position, a catch or hook may be employed, or any preferred fastening device. 60

The operation is as follows: When the train is moving, it imparts motion from its axle to the friction-wheel, which transmits it to the 65 shafts which operate the fans and cause them to revolve with great rapidity and to ventilate the cars effectually.

It is evident that the mechanism is simple, is thoroughly efficient, and can be placed in 70 cars at a very moderate cost.

We are aware that it is old in devices of this character to employ a wheel adapted to be rotated by contact with one of the axles of the car-truck and connected by proper gear- 75 ing to the axles or shafts on which the fans are mounted; but we are not aware that the particular construction herein shown and described is old.

Having thus described our invention, what 80 we claim as new, and desire to secure by Letters Patent, is—

An apparatus for the purpose named, consisting of a vertical shaft suitably journaled in the car-body and having a pulley on its upper end and a gearing-wheel on its lower end, 85 a shaft carrying a fan and pulley, the latter connected by a belt with said pulley on the vertical shaft, a horizontal shaft journaled in hangers on the car-body and having a gear- 90 wheel meshing with the gear-wheel on the vertical shaft, an arm pivoted to said shaft, and having at its free end a friction-wheel adapted to contact with one of the axles of the car-truck, pulleys on said horizontal shaft and 95 on the journal of friction-wheel, a belt connecting said last-mentioned pulley, and a lever connected to said pivoted arm and passing into the car, said parts being combined substantially as and for the purpose set forth. 100

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