

No. 849,549.

PATENTED APR. 9, 1907.

L. C. LULL.  
MOTOR VEHICLE.

APPLICATION FILED OCT. 24, 1904.

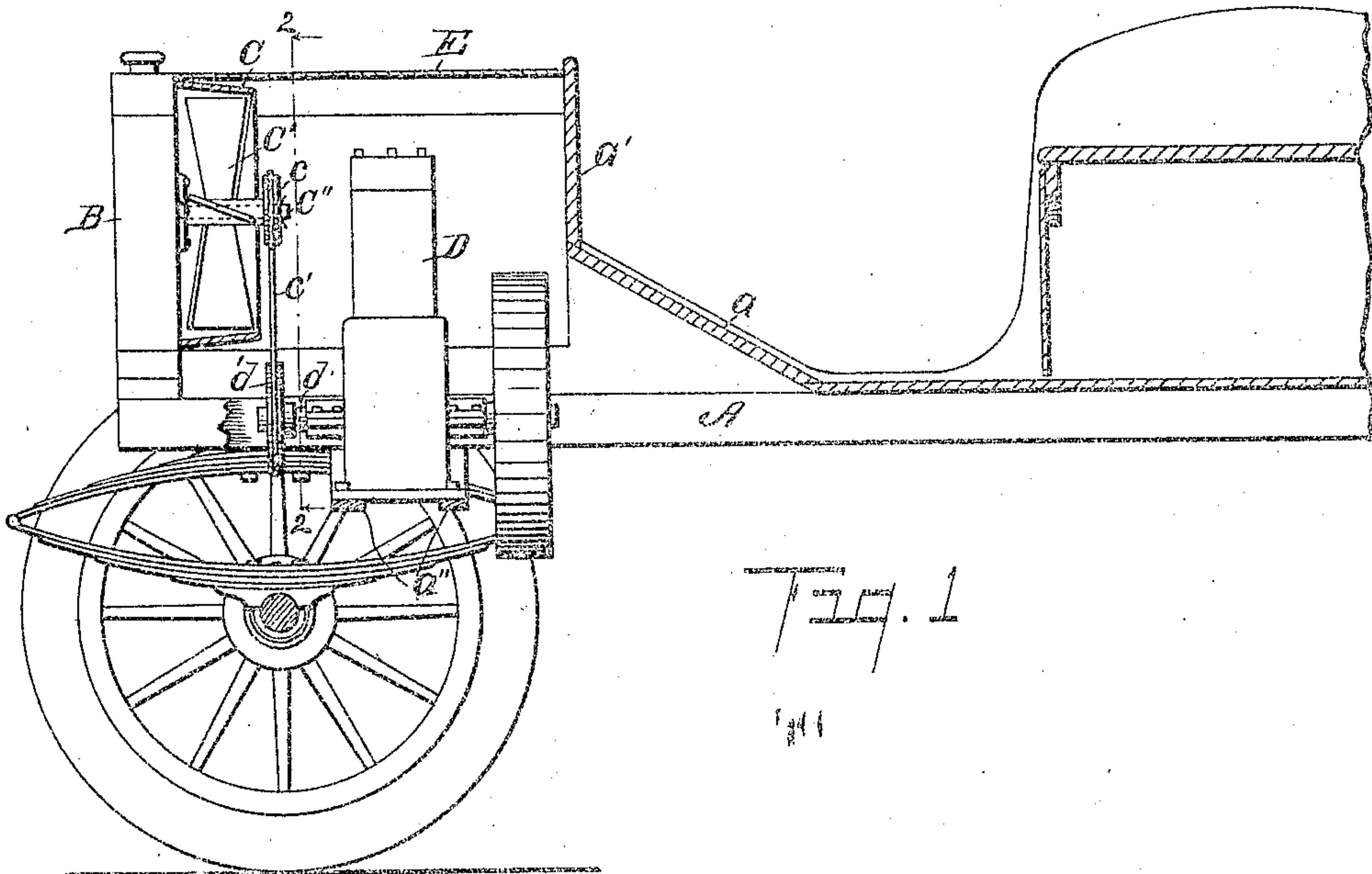


Fig. 1

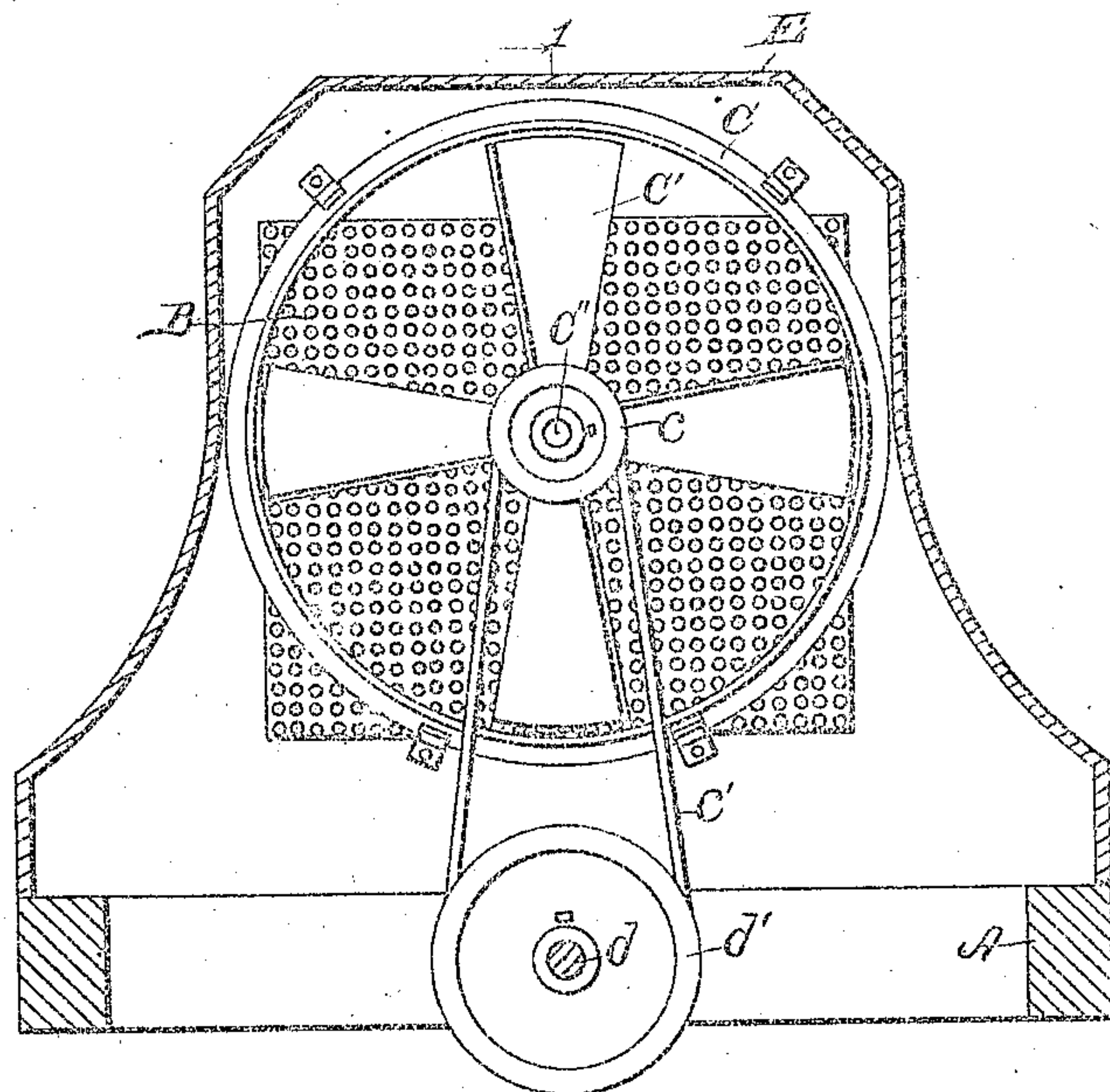


Fig. 2

Witnesses:

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Att'y's



# UNITED STATES PATENT OFFICE.

LYNN C. LULL, OF KALAMAZOO, MICHIGAN.

## MOTOR-VEHICLE.

No. 849,549.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed October 24, 1904. Serial No. 229,787.

*To all whom it may concern:*

Be it known that I, LYNN C. LULL, a citizen of the United States, residing at the city of Kalamazoo, county of Kalamazoo, State of Michigan, have invented a certain new and useful Improvement in Motor-Vehicles, of which the following is a specification.

This invention relates to improvements in motor-vehicles.

The objects of this invention are, first, to provide an improved motor-vehicle in which the dust created by its movement over the road-bed is deflected away from the vehicle; second, to provide an improved motor-vehicle adapted to accomplish the object stated in which the air passing through the heat-radiating device is utilized.

Further objects and objects relating to structural details will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined, and pointed-out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail longitudinal vertical sectional view through a structure embodying the features of my invention, taken on a line corresponding to line 1-1 of Fig. 2. Fig. 2 is a transverse vertical sectional view taken on line 2-2 of Fig. 1.

In the drawings the sectional views are taken looking in the direction of the little arrows at the ends of the section-lines, and similar letters of reference refer to similar parts throughout the several views.

Referring to the drawings, A represents the vehicle-body, which is mounted upon the running-gear in the usual or any desired manner. The vehicle-body is provided with an upwardly-inclined footboard *a* and a dashboard *a'*. The motor D is mounted on suitable cross-pieces *a''* on the body A, as appears in Fig. 1. The motor is inclosed by a casing or hood E, extending forwardly from the foot and dash boards *a a'*. This casing is open at the bottom. The heat-radiating device B is arranged in the forward end of the casing or hood E.

The fan C' is arranged at the rear of the heat-radiating device B. The fan C' is mounted on a suitable shaft C'', projecting

rearwardly from the heat-radiating device. The fan C' is provided with an open-ended conical casing C, the small end of the casing projecting rearwardly. This casing projects rearwardly from the heat-radiating device, as clearly appears in Fig. 2. The fan C' is connected to the shaft *d* of the motor by the belt *c'*, which connects the wheel *c* on the hub of the fan C' with the wheel *d'* on the shaft *d*. The motor D is located to the rear of the fan C', so that the air delivered thereby is delivered onto the motor, thus assisting in cooling the same. The air drawn through the heat-radiating device by the fan is forced rearwardly through the casing E and is deflected downwardly by the inclined footboard *a*, so that it deflects the dust which arises from the movement of the vehicle over the road away from the vehicle. The fan by this arrangement serves a double purpose—that of creating a current through the heat-radiating device and delivering it upon the motor for the purpose of properly cooling the cylinder and of deflecting the dust from the vehicle. A further advantage is that with the parts thus arranged the exhaust from the motor is carried away from the vehicle in an effective manner.

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

1. In a motor-vehicle, the combination of a vehicle-body; an inclined footboard and a dashboard therefor, with a casing or hood projecting forwardly from said foot and dashboards; a heat-radiating device at the forward end of said casing or hood; a fan supported to the rear of said heat-radiating device; a conical open-ended casing for said fan projecting rearwardly from said heat-radiating device coacting with said hood, footboard, and dashboard, to direct the air-current delivered from said fan rearwardly and downwardly under the vehicle-body; a motor arranged in said hood at the rear of said fan, adapted to receive the air-current therefrom; and driving connections from said fan, for the purpose specified.

2. In a motor-vehicle, the combination of a vehicle-body; an inclined footboard and a dashboard therefor, with a casing or hood projecting forwardly from said foot and dashboards; a heat-radiating device at the forward end of said casing or hood; a fan supported to the rear of said heat-radiating device; a conical open-ended casing for said fan



projecting rearwardly from said heat-radiating device, coacting with the said hood, footboard, and dashboard, to direct the air-current delivered from said fan rearwardly and downwardly under the vehicle-body; and driving connections from said fan, for the purpose specified.

3. In a motor-vehicle, the combination of a vehicle-body; an inclined footboard and a dashboard therefor, with a casing or hood projecting forwardly from said foot and dashboards; a heat-radiating device at the forward end of said casing or hood; a fan supported to the rear of said heat-radiating device; an open-ended casing for said fan, projecting rearwardly from said heat-radiating device, coacting with the said hood, footboard, and dashboard, to direct the air-current delivered from said fan rearwardly and downwardly under the vehicle-body; a motor arranged in said hood at the rear of said fan, adapted to receive the air-current therefrom; and driving connections from said fan, for the purpose specified.

4. In a motor-vehicle, the combination of a vehicle-body; an inclined footboard and a dashboard therefor, with a casing or hood projecting forwardly from said foot and dashboards; a heat-radiating device at the forward end of said casing or hood; a fan supported to the rear of said heat-radiating device; an open-ended casing for said fan, projecting rearwardly from said heat-radiating device coacting with the said hood, footboard, and dashboard, to direct the air-current delivered from said fan rearwardly and downwardly under the vehicle-body; and driving connection from said fan, for the purpose specified.

5. In a motor-vehicle, the combination of a vehicle-body; a casing or hood at the forward end thereof; a heat-radiating device at the forward end of said casing or hood; a fan supported to the rear of said heat-radiating device; a conical open-ended casing for said fan projecting rearwardly from said heat-radiating device coacting with said hood, to direct the air-current delivered from said fan rearwardly and downwardly under the ve-

hicle-body; a motor arranged in said hood at the rear of said fan, adapted to receive the air therefrom; and driving connections from said fan, for the purpose specified.

6. In a motor-vehicle, the combination of a vehicle-body; a casing or hood at the forward end thereof; a heat-radiating device at the forward end of said casing or hood; a fan supported to the rear of said heat-radiating device; a conical, open-ended casing for said fan projecting rearwardly from said heat-radiating device coacting with said hood to direct the air-current delivered from said fan rearwardly and downwardly under the vehicle-body; and driving connections from said fan, for the purpose specified.

7. In a motor-vehicle, the combination of a vehicle-body; a casing or hood at the forward end thereof; a heat-radiating device at the forward end of said casing or hood; a fan supported to the rear of said heat-radiating device; an open-ended casing for said fan projecting rearwardly from said heat-radiating device, coacting with said hood, to direct the air-current delivered from said fan rearwardly and downwardly under the vehicle-body; a motor arranged in said hood at the rear of said fan, adapted to receive the air therefrom; and driving connections from said fan, for the purpose specified.

8. In a motor-vehicle, the combination of a vehicle-body; a casing or hood at the forward end thereof; a heat-radiating device at the forward end of said casing or hood; a fan supported to the rear of said heat-radiating device; an open-ended casing for said fan projecting rearwardly from said heat-radiating device, coacting with said hood, to direct the air-current delivered from said fan rearwardly and downwardly under the vehicle-body; and driving connections from said fan, for the purpose specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

LYNN C. LULL. [L. S.]

Witnesses:

JNO. P. COYNE,

MABEL GOCHENOUR.