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ARRANGEMENT FOR FANS FOR AIR COOLED REAR ENGINES

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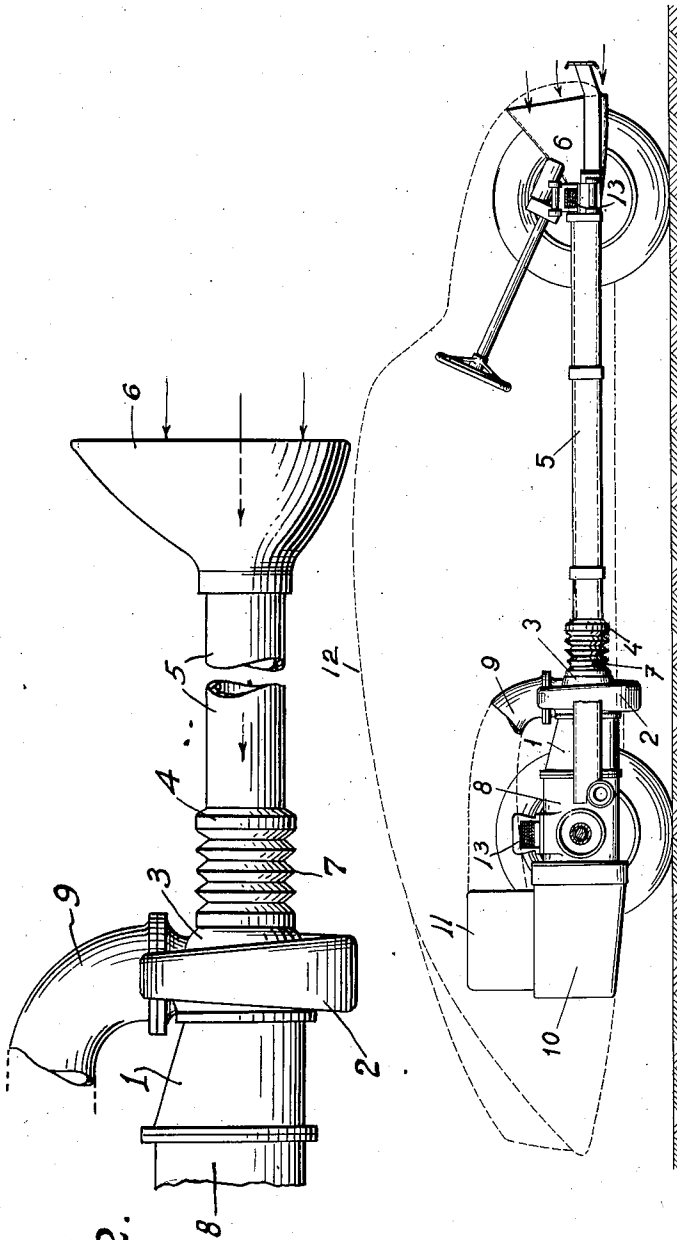


Fig. 1.

Fig. 2.

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ARRANGEMENT FOR FANS FOR AIR COOLED
REAR ENGINES

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2 Claims. (Cl. 180-54)

This invention relates to an arrangement for fans for air cooled rear engine vehicles.

In the case of rear engine vehicles, the engine must be cooled by means of air, which is supplied to the engine through suitable apertures provided in the engine cover or in the body. This air is driven towards the ribbed cylinders of the engine by means of the fan. The fan itself can be arranged either for direct drive by means of suitable shafts in the mechanism of the vehicle or for belt drive.

According to the invention the fan is so disposed that its casing is rigidly connected to the gear box and the fan drive is driven from the extended shaft of this gearing. In this case the fan preferably lies in the longitudinal axis of the vehicle in such a way that its suction aperture lies directly in front of the open rear end of the vehicle-carrying pipe, so that the air streaming through the pipe can be sucked directly from the front part of the vehicle, which can be further assisted by a funnel-shaped widening at the front end of the carrying pipe.

One example of embodiment made in accordance with the invention is illustrated diagrammatically in the drawing.

Fig. 1 is a longitudinal section and part side elevation showing my invention in use.

Fig. 2 is an enlarged detail view showing a portion of the same, parts being broken away.

On the front vertical side of the gear box 1 a fan casing 2 is fastened in such a way that its suction or inlet branch 3 lies directly in line with the rear end of an air carrying pipe 5. The front end of this pipe 5 lies adjacent the front end of the vehicle 12 and has a funnel enlargement 6 at said front end. The rear end 4 of the pipe 5 is coupled to the fan inlet 3 by a flexible (vibration absorbing) connection 7.

10 designates the engine to whose crank case

8 the gear box 1 is fastened in known manner. The outlet pipe 9 from the fan casing 2 delivers the air to the engine block or cylinders 11 of the engine 10.

5 The automobile body in general is designated by 12 and 13 designates the usual springs for mounting the body on the chassis.

What I claim and desire to secure by Letters Patent is:

10 1. In combination with an air cooled rear engine for automobiles, a gear box secured to the front of the engine, a fan having an inlet side and an outlet side and mounted on the front vertical face of the gear box, a pipe extending from the inlet side of the said fan co-axially with the engine toward the front of the vehicle, said pipe adapted to pass air from the front of the vehicle to the inlet side of the fan, and a duct from the outlet side of the fan to the engine cylinders whereby the air drawn through said pipe by the fan from the front of the vehicle is blown over the cylinders of the engine.

25 2. In combination with an air cooled rear engine for automobiles, a gear box secured to the front of the engine, a fan having an inlet side and an outlet side and mounted on the front vertical face of the gear box, a pipe extending from the inlet side of the said fan co-axially with the engine toward the front of the vehicle, said pipe adapted to pass air from the front of the vehicle to the inlet side of the fan, and a duct from the outlet side of the fan to the engine cylinders whereby the air drawn through said pipe by the fan from the front of the vehicle is blown over the cylinders of the engine, there being an elastic connection between said pipe and said fan, and a funnel at the front end of said pipe and located at the front end of the vehicle.

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