A. DENMAN-JONES.

HEATING DEVICE FOR AUTOMOBILES.

APPLICATION FILED FEB. 4, 1920.

1,393,093. Patented Oct. 11, 1921.

Fig. 1.

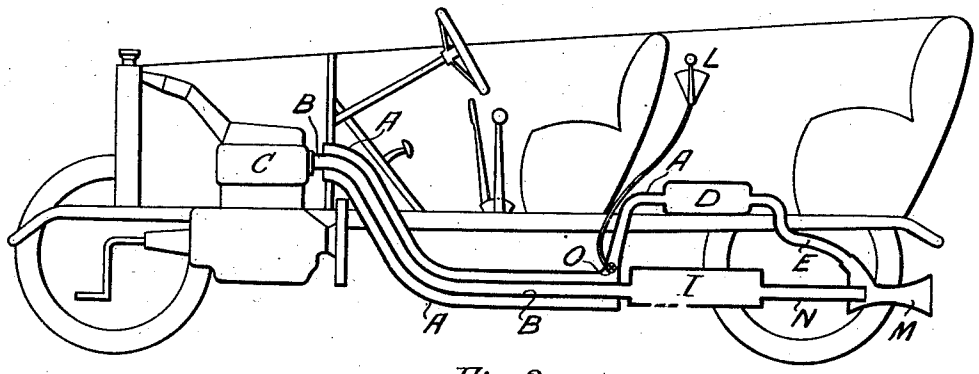
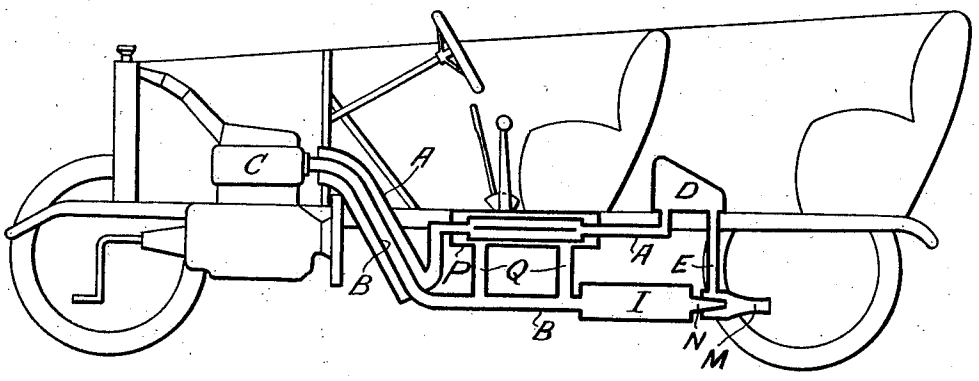


Fig. 2.



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UNITED STATES PATENT OFFICE.

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HEATING DEVICE FOR AUTOMOBILES.

1,393,093. Specification of Letters Patent. Patented Oct. 11, 1921.

Application filed February 4, 1920. Serial No. 356,162.

To all whom it may concern:

Be it known that I, ADRIAN DENMAN-JONES, a subject of the King of Great Britain, residing at 37 Hartham road, Holloway, in the county of London, England, have invented a new and useful Improvement in Heating Devices for Automobiles, of which the following is a specification.

This invention relates to improved means for warming automobiles.

It has before been proposed to warm an automobile by leading hot air from around the engine through a heater in the automobile. This arrangement has the defect that the circulation of the air through the heater, being dependent upon the motion of the automobile or the action of a fan, is not always satisfactory.

It has also been proposed to pass the exhaust through a heater, but this system has the defect that should there be any leak the exhaust gases escape into the body and also that there is frequently unpleasant noise and vibration. Moreover, there is the danger that should a back fire occur, the whole of the heater may be blown up.

According to this invention I connect a heater to which heated air is supplied to an exhauster so that the pressure in the heater is below atmospheric pressure. The withdrawal of the air from the heater by the exhauster may be aided by exhaust gases issuing from the silencer.

My invention is illustrated by the accompanying drawings, Figure 1 of which shows an automobile fitted with my heating device, while Fig. 2 shows a modification. A is a pipe which surrounds the exhaust pipe B and leads from the neighborhood of the engine C to a heater D in the body from which heater the hot air can escape through a pipe E the end of which is provided with an exhauster M into which the pipe N leading from the silencer I leads so that the gases as they escape from the silencer induce a current of air through the pipe A and heater D. The flow of air through the heater may be controlled by a valve O located in the pipe A and operated by a handle L.

The arrangement shown in Fig. 2 is very similar to that shown in Fig. 1 except that in place of the pipe A surrounding the exhaust pipe B for the greater portion of its length, it only does so for the first portion and then passes through a chamber P connected to the exhaust pipe by branch pipes Q, Q.

What I claim is:—

The combination with the engine of an automobile, of a closed heater within the automobile, a pipe open at the front and leading from the engine compartment or casing to the heater, a pipe leading from the heater and delivering rearward beneath the automobile, and a pipe connected with the engine exhaust and injecting into the pipe leading from the heater, the organization being such that hot air from around the engine is led through the heater without discharging into the interior of the automobile and is discharged from the heater by the injected exhaust gases entering the discharge pipe from the heater.

In testimony that I claim the foregoing as my invention, I have signed my name this sixteenth day of January, 1920.

ADRIAN DENMAN-JONES.