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AUTOMOBILE HEATER

Filed Feb. 8, 1929

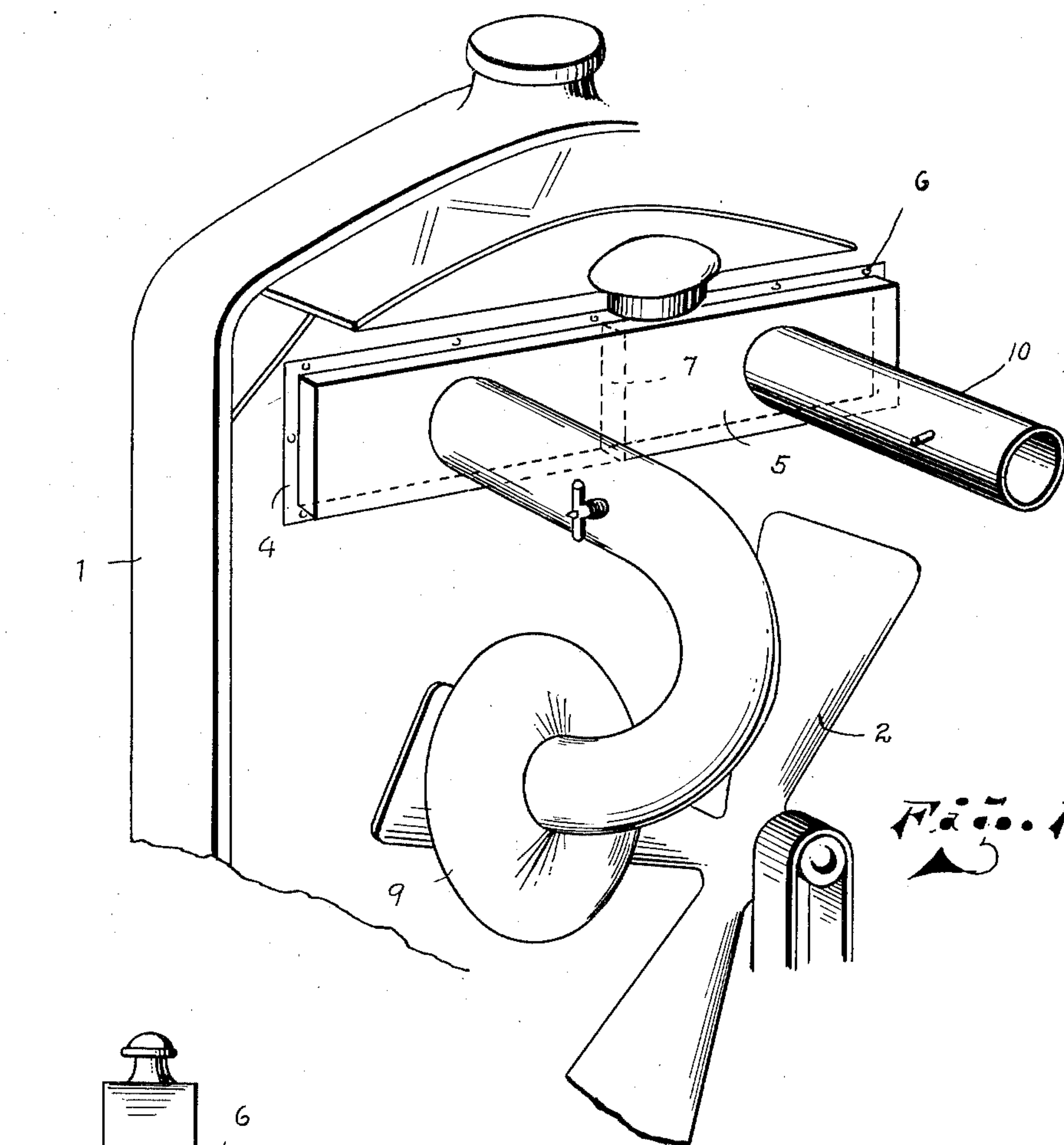


Fig. 1.

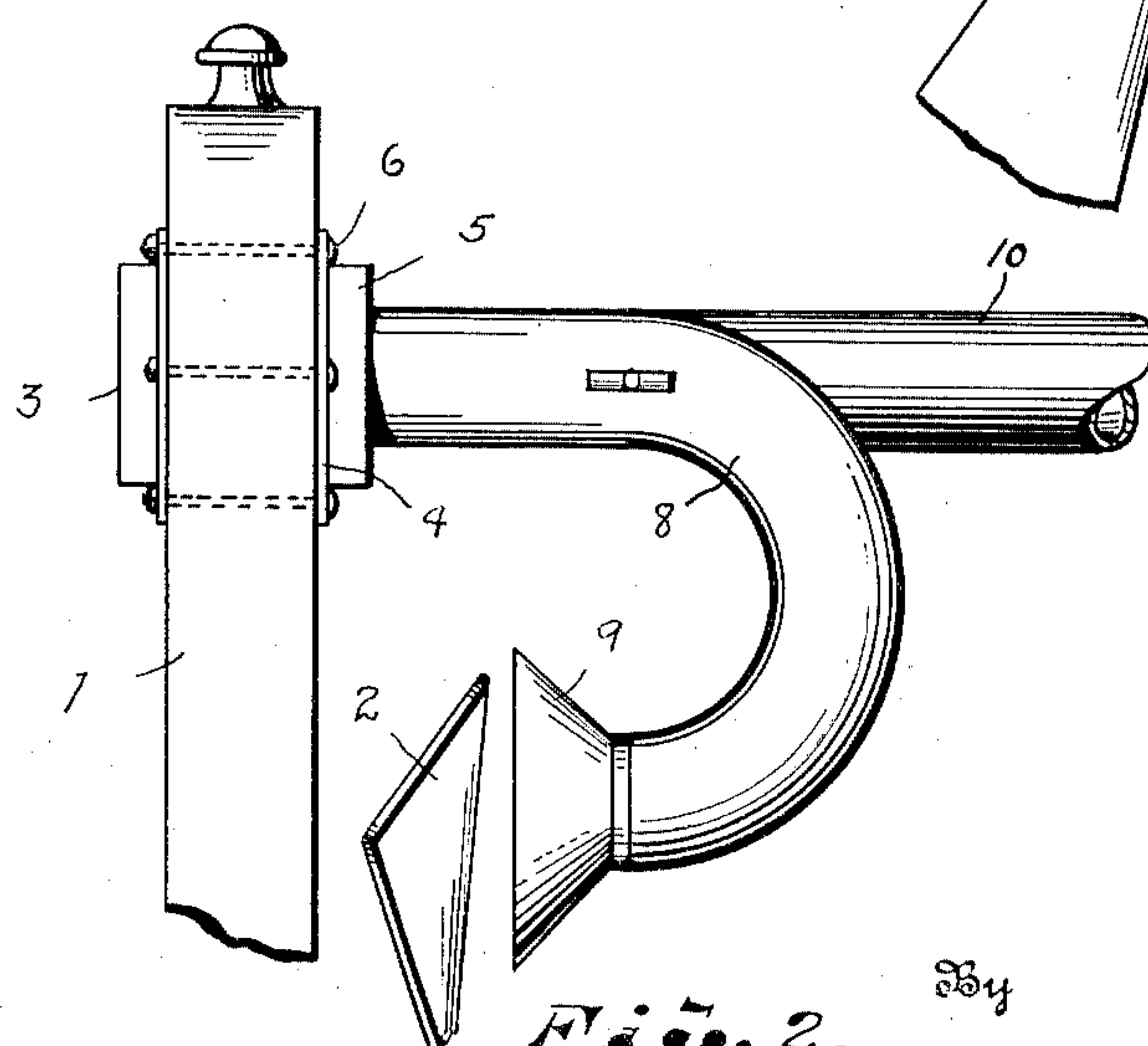


Fig. 2.

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## UNITED STATES PATENT OFFICE

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## AUTOMOBILE HEATER

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This invention relates to heating devices for automobiles, the principal object being to provide simple means whereby to utilize heat liberated in the ordinary radiator of such a vehicle. The power for conducting the heat also is found in the ordinary vehicle.

Other objects and advantages of the invention will appear in the following description thereof.

Referring now to the accompanying drawing forming part of this application, and wherein like reference characters indicate like parts:

Figure 1 is a perspective view of the innermost face of a common automobile radiator showing one embodiment of the invention applied thereto; and

Figure 2 is a side elevation of the upper part of the radiator and heat conducting attachment.

1 represents the radiator through which air is ordinarily drawn by the blades 2 of the cooling fan disposed directly therebehind. 3 represents a pan-like covering plate which is of rectangular form and elongated horizontally, so that it covers the uppermost portion of same its entire width, thus forming a continuous circulating chamber intermediate of the radiator and the outermost wall of the pan or housing 3.

Upon the innermost face of the radiator is installed a like pan or housing 5 it being directly opposite the housing 3. The pan-like housings 3 and 5 are provided with outstanding flanges 4 through which and the radiator core nut-equipped bolts 6 are passed to clamp the said parts together in the positions illustrated in the drawing.

The housing 5 differs from the housing 3 in that it is provided with a vertical wall indicated at 7 intermediate of the ends thereof and which wall may or may not be in the center as practice may determine, though I have shown the same at substantially that point, this wall being for the purpose of preventing air communication intermediate of the ends of the housing, thus dividing the housing 5 into two substantially equal chambers or compartments.

In the centermost portion of one of these compartments is attached a gooseneck conduit 8, it extending rearwardly towards the engine of the automobile and downwardly and away from the engine or towards the fan. Upon the free terminus of the conduit it is provided with a flaring entrance or funnel like member indicated at 9, this being of any desired size as practice may determine most convenient. This conduit is for the purpose of receiving air forced rearwardly by the blades of the fan as it rotates in the ordinary operation of the automobile.

Centrally of the compartment at the opposite end of the housing 5 is attached a conduit 10 which may lead to any part of the automobile for heating the interior thereof, for example to the compartment just rearwardly of the instrument board or the tonneau as preferred, and it is to be understood that this conduit as well as the intake conduit are provided with a suitable damper for control of air therethrough. By this installation it is evident that air forced through the intake 8 will pass directly through the upper portion of the radiator communicating with the chamber to which the intake pipe is connected, into the chamber of the housing 3, and longitudinally of the latter to the opposite end, thence by return passage through the radiator into the chamber at the opposite end of the housing 5 and through the conduit pipe 10.

It is well known that the cooling of the circulating water to the engine results in considerable waste of heat, and it is considered that in the respect of economy this invention is particularly efficient in utilizing a portion of such waste energy.

While I have shown a specific embodiment of the device as herein described, the invention resides in the following claims.

I claim:

1. The combination with an automobile engine radiator, and co-operating engine-driven fan back of said radiator, of a housing substantially enclosing an upper portion of the radiator core, said housing having intake and outlet conduits, the former hav-



ing a receiving head located back of said fan so that air blown from the fan will be forced through said intake conduit into said housing and thence through said outlet conduit.

5 2. The combination with an automobile engine radiator, and co-operating engine-driven fan back of said radiator, of a housing substantially enclosing an upper portion of the radiator core, said housing having  
10 intake and outlet conduits, the former having a receiving head located back of said fan so that air blown from the fan will be forced through said intake conduit into said housing and from thence through said outlet  
15 conduit, said housing having a baffle wall located between its intake and outlet conduits.

3. A heater for an automobile having in combination with the radiator of said automobile, a plate secured to the front of said  
20 radiator, a casing secured to the rear of said radiator having an open side disposed against the inner side of said radiator, aligned with and substantially co-extensive  
25 with said plate, an inlet conduit at one part of said casing, means in the rear of a part of the radiator not covered by said plate or casing for receiving air passing through said radiator, and directing the same into said  
30 inlet conduit and an outlet conduit connected to said casing and adapted to deliver air into the body of said automobile.

4. A heater for an automobile having in combination with the radiator and cooling  
35 fan of said automobile a plate secured to the front of said radiator, a casing secured to the rear of said radiator opposite said plate and having an open side disposed against said radiator, an inlet conduit secured to  
40 said casing, a funnel secured to said conduit and having its open end disposed in the rear of a portion of the radiator not covered by said plate or casing and in the rear of said cooling fan and an outlet conduit for said  
45 casing extending to the body of the automobile for delivering heated air thereto.

In testimony whereof I affix my signature.  
WALTER T. SCOTT.

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