W. HESCH.

HEATER FOR AUTOMOBILES.

APPLICATION FILED AUG. 23, 1911.

1,127,621. Patented Feb. 9, 1915.

Fig. 1.

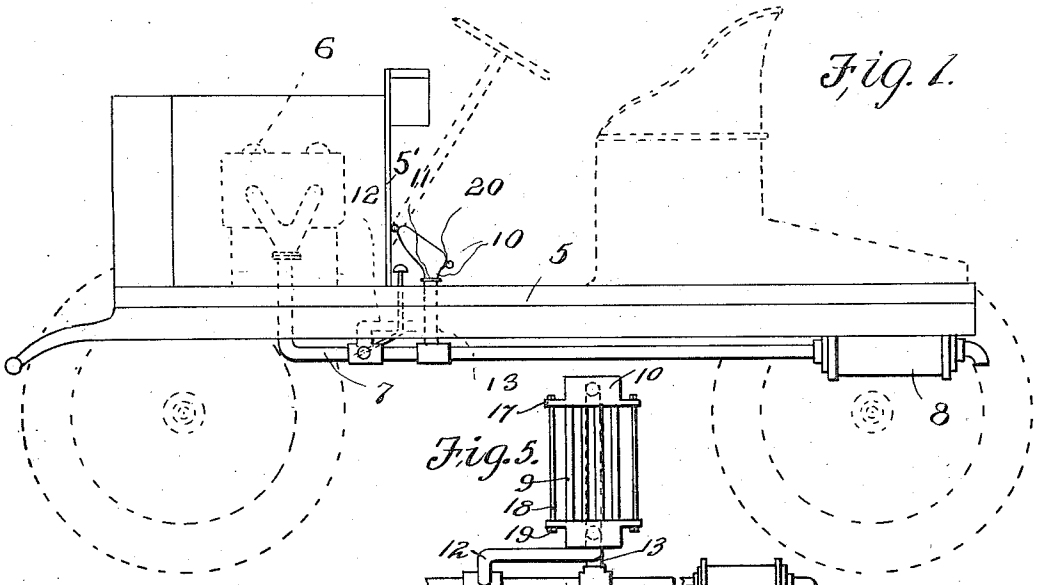
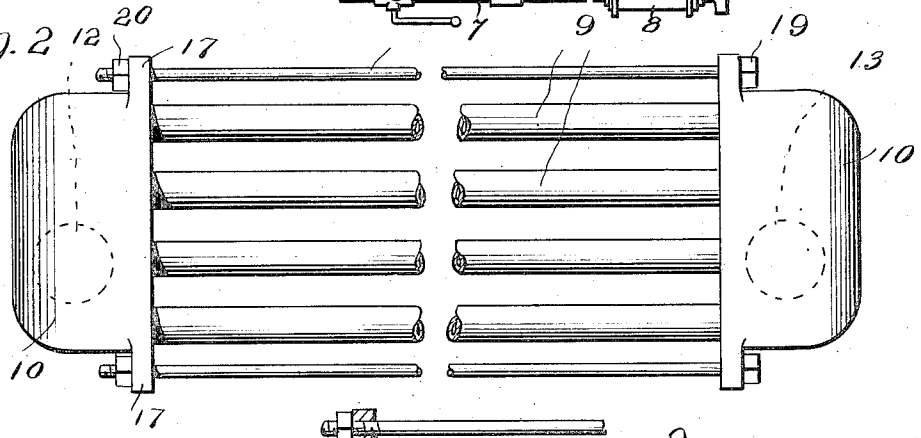


Fig. 5.

Fig. 2



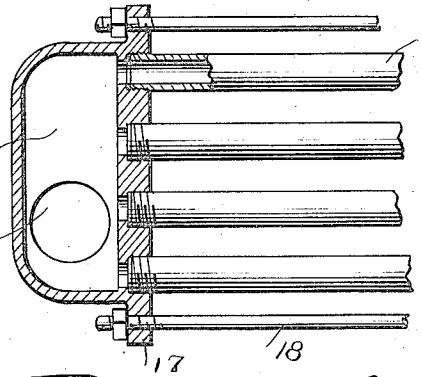
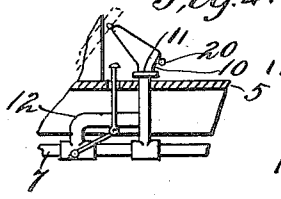


Fig. 3

Fig. 4.



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UNITED STATES PATENT OFFICE.

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HEATER FOR AUTOMOBILES.

1,127,621. Specification of Letters Patent. Patented Feb. 9, 1915.

Application filed August 23, 1911. Serial No. 645,561.

To all whom it may concern:

Be it known that I, WILLIAM HESCH, a citizen of the United States, residing at Santa Fe, in the county of Santa Fe and State of New Mexico, have invented new and useful Improvements in Heaters for Automobiles, of which the following is a specification.

The invention relates to heating devices, and more particularly to the class of means for heating automobiles, or other like vehicles.

The primary object of the invention is the provision of a heating device of this character in which the exhaust gases from the explosive engine of the automobile or other self-propelled vehicle will be utilized for heating purposes, for the comfort of the users of the automobile.

Another object of my invention consists in so locating the heating device relatively to the chassis of the automobile as to cause the heating device to be mounted with respect thereto at an inclination but without causing the circulating pipes to contact with the chassis, this arrangement being subserved in order to remove the pressure of the person's foot from the pipes and to cause the heating device to be supported by the platform as well as by the chassis of the machine.

A further object of the invention is the provision of a heater of this character which is simple in construction, readily and easily mounted in automobiles of varying types, and especially those employing explosive engines, and also one that is thoroughly reliable and efficient in operation, and inexpensive in installation.

Other objects of the invention will be in part obvious, and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combination of elements, and arrangement of parts, as will be exemplified in the construction hereinafter fully described, and the scope of the application of which will be indicated in the following claim.

In the drawings: Figure 1 is a side elevation of an engine, muffler, and heater, and a portion of an automobile necessary to show the manner in which the invention is applied thereto. Fig. 2 is an enlarged elevation of the heater. Fig. 3 is a vertical longitudinal sectional view through the heater. Fig. 4 is a side elevation. Fig. 5 is a plan view.

Similar reference characters indicate corresponding parts throughout the several views of the drawings.

Referring to the drawings by numerals, 5 designates the floor and 5′ the dash board of an automobile of the ordinary well-known construction, having arranged therein an explosive engine, provided with any suitable number of cylinders 6, discharging into a common exhaust pipe 7 connected with a muffler 8 of the ordinary well-known type.

Arranged within convenient position with respect to the occupant or occupants of the vehicle is a heater, in the nature of a foot warmer, comprising a plurality of spaced parallel tubes 9, preferably constructed from brass, the ends thereof being fitted in suitable sockets or apertures formed in the inner edges of hollow headers 10, the pipes 9 being threaded in the sockets or apertures and communicating with the said headers. These headers 10 are inclined, as shown, at such an angle that the operator's feet may be rested conveniently thereon, and they are provided adjacent to their lower ends with pipe union extensions or nipples 11, with which are engaged inlet and exhaust pipes 12 and 13, respectively, the inlet pipe being connected with the exhaust pipe 7 between the engine cylinders 6 and the muffler, while the outlet or exhaust pipe 13 is connected to the said exhaust pipe 7, adjacent to the muffler 8, so that exhaust gases will have a circuitous course from the exhaust pipe 7 through the inlet pipe 12, the tubes 9, and outlet pipe 13 to the muffler, and thence discharge to the atmosphere. As the inlet and exhaust pipes are connected with the lower ends of the headers 10, the heated gases from the engine must pass through the connecting tubes 9 as they pass upwardly to the top of the heater, before their passage downwardly and out through the exhaust pipe. Therefore a good circulation is afforded. Another advantage of this construction resides in the fact that any solid products of combustion which may enter the heater will be permitted to gain exit through the inlet or exhaust pipes, as they gravitate into the same. At the point of connection of the inlet pipe 12 with the exhaust pipe 7 is provided a cut-off valve 14 which will be provided with the conventional ports, which

latter are adapted to register with the exhaust pipe 7 toward the engine cylinders 6 and the inlet pipe 12, so that the exhaust gases from the engine cylinders 6 will be directed or diverted from the exhaust pipe 7 through the heater, as will be clearly apparent. However, upon turning the cut-off valve 14 in a direction so that the ports therein will register with the exhaust pipe 7 at opposite sides of the valve, the inlet pipe 12 to the heater will be closed, thereby permitting the exhaust gases to pass into the muffler 8 and discharge to the atmosphere.

Formed on the headers 10 are oppositely extending perforated ears 17, through which are passed tie rods or union bolts 18, each being provided with a head 19 at one end, and having threaded on its opposite end the usual nut 20, so that the said headers will be united, and also enabling tight joints to be made between the tubes 9 and the said headers, so as to prevent any possibility of leakage of the exhaust gases, when passing therethrough.

It is to be observed that the header is so mounted in position that the threaded extensions or nipples 11 will extend down toward the platform of the machine while the ears 17 will engage the chassis of the automobile so that the header may incline upwardly and forwardly and bear against the chassis. In this way, since the ears engage the chassis none of the circulating pipes will be brought in contact with any part of the machine thereby saving the same against impairment and at the same time assuring that the pressure of the person's foot upon the header will not affect the pipes or direct all the stresses upon the pipes which would promote the tendency of an insecure joint or section being formed between the pipes and the headers.

Numerous modifications may be resorted to in practice without departing in principle from the details of construction therein disclosed.

What is claimed is:

In a heater for motor vehicles, the combination of two pipes extending upwardly through the floor of the vehicle, two headers, each of said headers being formed with a nipple connected to one of said pipes, a plurality of circulating pipes connecting said headers, oppositely arranged ears formed upon each of said headers, tie rods connecting the ears, each of said headers being inclined upwardly and forwardly toward the dash board whereby said ears may engage the latter, means for conducting heating fluid through one of said pipes, and means for discharging the exhaust from the other of said pipes.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM HESCH.

Witnesses:
C. C. CATRON,
A. D. TABANACH.