

L. H. MAYER.
 HEATER FOR AUTOMOBILE RADIATORS.
 APPLICATION FILED JULY 29, 1912.

1,060,992.

Patented May 6, 1913.

Fig. 1.

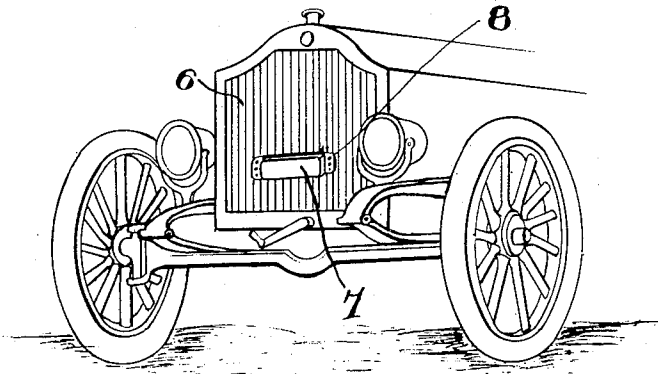


Fig. 2.

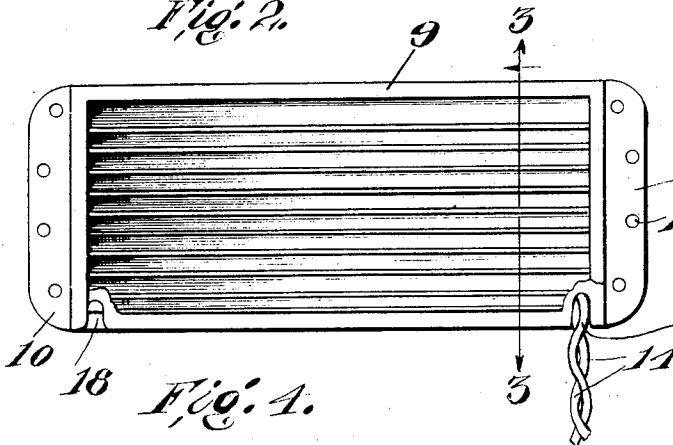


Fig. 3.

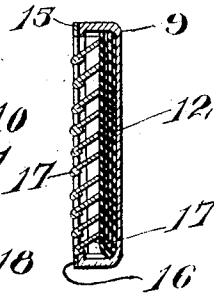


Fig. 4.

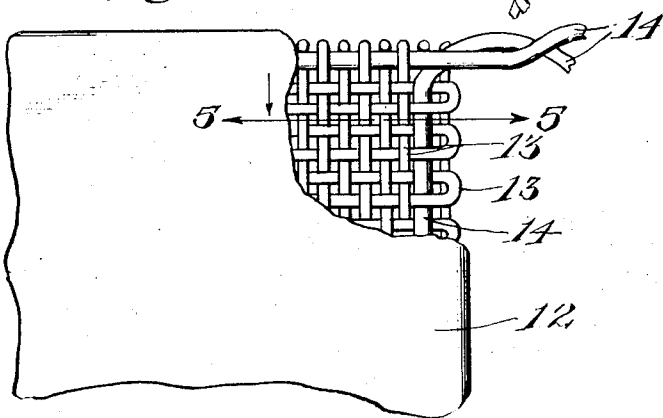
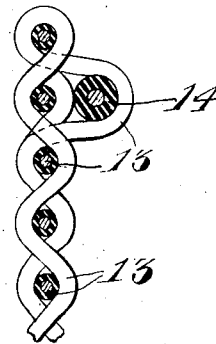


Fig. 5.



WITNESSES

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HEATER FOR AUTOMOBILE-RADIATORS.

1,060,992.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed July 29, 1912. Serial No. 712,102.

To all whom it may concern:

Be it known that I, LOUIS H. MAYER, a citizen of the United States of America, and resident of Johnstown, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Heaters for Automobile-Radiators, of which the following is a specification.

This invention relates to electric heaters and particularly to a device designed to heat radiators of gasoline engines and to prevent freezing of the contents of the same.

An object of this invention is to provide novel means which may be applied to a radiator preferably in the front thereof to be electrically heated so that the heat radiated therefrom may retain the temperature of the water or other liquid in the radiator above the freezing point.

A still further object of this invention is to provide a device of the character indicated which may be readily applied to or removed from an automobile and which may be utilized in connection with ordinary service electric current or in connection with a source of electricity carried by the automobile.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in perspective of a fragment of an automobile with the invention applied thereto; Fig. 2 illustrates a view in elevation of the inner face of the heater; Fig. 3 illustrates a section on the line 3—3 of Fig. 2; Fig. 4 illustrates a view in elevation of a fragment of the heating element employed for utilizing the electricity; and Fig. 5 illustrates a sectional view on the line 5—5 of Fig. 4.

In these drawings 6 denotes a radiator of an automobile which may be of any usual construction showing the heater 7 applied thereto and secured by fastenings 8 which may be in the form of rivets, bolts, or other anchoring elements.

The heater comprises preferably a rectangular casing 9 with flanges 10 at the end thereof provided with openings 11 to receive the fastenings 8. The casing 9 is designed to receive a heating element comprising an asbestos or other non-inflammable covering 12 for the conductors of electricity 13, the said conductors of electricity being in circuit with the feed wire 14 which may extend to any source of electricity as heretofore indicated. The conductors 13 are insulated but as the heating element forms no part of the invention it need not, it is thought, be described in detail. It is preferable that the heating element be flexible so that it can be folded into the receptacle 9 as shown in Fig. 3.

The receptacle 9 has a heating element retaining member comprising a rectangular frame 15 with flanges 16 resting on the face of the sides and ends of the receptacle 9, the said frame being provided with a series of ribs 17 attached at their ends to the frame, the said ribs lying approximately parallel and obliquely, the inner edges of the said ribs being adapted to bear against the heating element for the purpose of retaining it in position and the interstices between the said ribs permitting the circulation of heated air and the said ribs further acting as conductors of heat, so that their outer edges being in contact with the front of the radiator heat from the said heating element is communicated to the radiator by the radiation of the heat through the ribs and by the circulation of the heated air. It will be observed that the frame 15, is provided with recesses 18 at its corners for the accommodation and passage therethrough of the feed wire.

I claim—

1. In a radiator heater, a receptacle having end flanges, a heating element therein, a retaining member for the heating element comprising a frame fitting in the receptacle, ribs having their ends secured to the frame, said ribs lying obliquely in the said frame and having their inner edges in contact with the heating element and means for securing the heater to a radiator of an automobile.

2. In a radiator heater, a receptacle having end flanges, a heating element therein, a retaining member for the heating element comprising a frame fitting in the receptacle having recesses in its edge for the passage

therethrough of conductors for the heating
element, ribs having their ends secured to
the frame, said ribs lying obliquely in the
said frame and having their inner edges in
5 contact with the heating element, and means
for securing the heater to a radiator of an
automobile.

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

LOUIS H. MAYER.

Witnesses:

DEAN S. ASHTON,
JNO. W. BUECHLY.