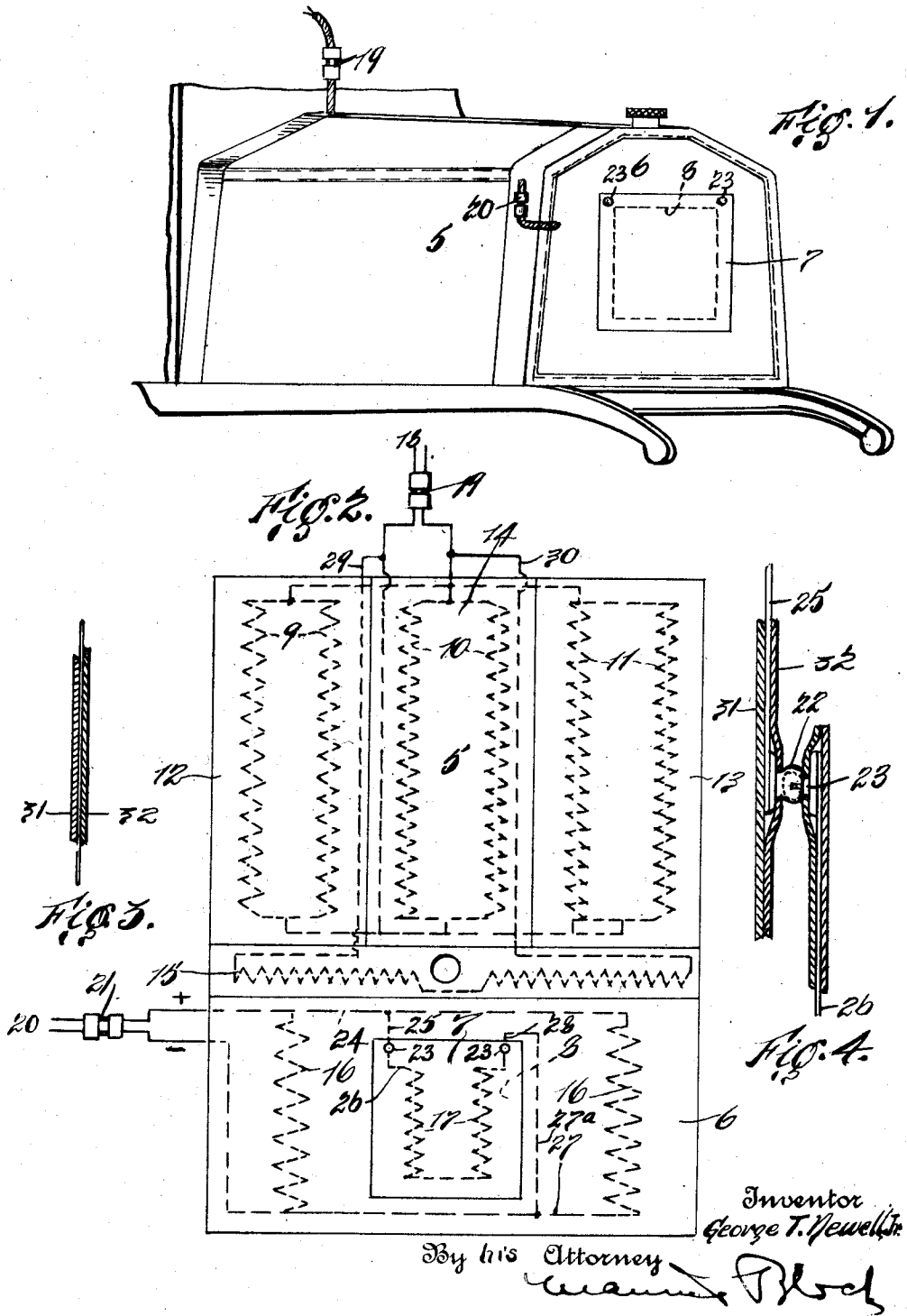


G. T. NEWELL, JR.
ELECTRICALLY HEATED AUTOMOBILE HOOD AND RADIATOR COVER.
APPLICATION FILED FEB. 2, 1920.

1,361,533.

Patented Dec. 7, 1920.



UNITED STATES PATENT OFFICE.

GEORGE T. NEWELL, JR., OF BEVERLY, NEW JERSEY.

ELECTRICALLY-HEATED AUTOMOBILE HOOD AND RADIATOR COVER.

1,361,533.

Specification of Letters Patent.

Patented Dec. 7, 1920.

Application filed February 2, 1920. Serial No. 355,565.

To all whom it may concern:

Be it known that I, GEORGE T. NEWELL, JR., a citizen of the United States of America, residing at Beverly, Burlington county, State of New Jersey, have invented certain new and useful Improvements in Electrically-Heated Automobile Hood and Radiator Covers, of which the following is a full, clear, and exact description.

This invention relates to improvements in electrically heated covers for automobile hoods and radiators, one of the objects of my invention being to provide a cover for automobile hoods and radiators arranged to materially assist in keeping the engine warm while the vehicle is standing in a cold garage or other place. My invention is more especially intended for use in connection with vehicles placed in garages which are not heated, and is designed to keep the motor warm, thereby obviating the necessity of drawing off the water in cold weather.

To carry out my invention, I provide a combined hood and radiator cover having electrical heating means preferably a resistance, either in the form of coils or straight wires, suitable connections being provided to connect same to a lighting circuit when the vehicle is not in use. By means of the resistance incorporated in the said covers, they can be maintained heated, thereby providing a heated jacket for the hood and radiator, which will act to prevent the water in the radiator and water jacket of the motor from freezing.

I will now describe my invention in detail, the novel features of which I will finally claim, reference being had to the accompanying drawings, wherein:—

Figure 1 is a perspective view of a hood and radiator of a motor vehicle provided with my improvement;

Fig. 2 is a diagrammatic layout of said hood and radiator cover together with resistance elements therein;

Fig. 3 is an enlarged fragmentary sectional view; and

Fig. 4 is an enlarged sectional view, illustrating the separable fastening elements for the apron of the radiator cover and which also act as circuit members.

As herein arranged, my invention consists of a hood cover 5 and radiator cover 6 having the usual apron 7 to cover the opening

8 while the vehicle is standing, said apron being dropped to allow air to flow through opening 8 while the vehicle is in motion. In this instance the hood cover and radiator cover are illustrated as connected, but they can be used as separate members if desirable; in other words, they can be constructed as two separate and distinct elements.

As herein arranged, the hood cover 5 is provided with resistance elements 9, 10, and 11, the elements 9 and 11 being incorporated in the side members 12 and 13 of the hood cover, and the resistance element 10 in the top element 14 of the said hood cover.

The radiator cover 6 is provided with resistance elements 15 and 16 and the apron 7 of the radiator cover with resistance elements 17. As herein illustrated, the resistance elements 9, 10 and 11 are connected to a circuit 18 by a suitable connection 19, and the resistance elements 16 and 17 to another circuit 20 by a suitable connection 21. The circuits 18 and 20, while termed separate circuits, may, and probably will be in most cases connected to the same main circuit of the lighting system of the building within which the vehicle is stored. The circuits 18 and 20, more properly speaking, will be branch circuits.

The resistance within the apron 17 will be connected to the circuit for the resistances 16, in the envelop member of the hood, when said apron is positioned to cover opening 18. To accomplish this result automatically, I employ the fastening elements 22 and 23, Fig. 4 (which in this instance are of the ball-and-socket variety), as circuit members by connecting the positive wire 24, for instance, for resistances 17 to one of the socket members 22 by a lead 25, and the co-operating button or ball 23 to the adjacent resistance 17, in apron 7, by a lead 26. The negative wire 27 for resistances 16 will be connected to the other socket member of the apron fastening device by a lead 27^a and the coöperating button or ball will be connected to its adjacent resistance 17, within apron 7, by a lead 28. In this manner the circuit for the apron resistances will be automatically established when the apron is fastened to cover opening 8. The resistance 15, as herein illustrated, is connected to the circuit for resistances 9, 10 and 11 by leads 29 and 30. The circuit layout herein described is illus-

trative only, as the resistances can be laid out in a variety of ways to accomplish the result sought.

When a vehicle, equipped with my improved device, is driven into a garage having an electrical circuit and branches for connection with my improved cover, one branch circuit will be connected by connection 19, and another by connection 21. When the current is turned on, the cover will become heated and if the current is allowed to remain on, it will maintain said cover heated, thereby providing a heated jacket for the motor. The covers will preferably be made of two layers 31 and 32, the resistance wire being located between said layers, as illustrated in Fig. 3.

Having described my invention, what I claim is:

1. A radiator cover for motor vehicles having an opening and an apron to cover same arranged to be moved to uncover said opening, means to separably connect said apron and radiator cover, electrical resistances within the radiator cover, electrical resistances within said apron, and means to automatically connect the resistances in said

apron to the leads for the resistances in the radiator cover when said apron is fastened to the cover to close the opening therein. 30

2. A radiator cover for motor vehicles having an opening and an apron to cover said opening, fastening elements carried by the cover adjacent the opening therein, co-operating fastening elements carried by the apron to engage the fastening elements on the cover, an electrical resistance within the cover and an electrical resistance within the apron, the fastening elements on said cover being connected in parallel with the circuit for the resistance within the cover, the co-operating fastening elements on the apron being in series with the resistance in the apron, all arranged so that the circuit for the resistance within the apron will be automatically established when the cover is fastened to the apron to cover said opening. 40 45

Signed at New York city, N. Y., this 30 day of January 1920.

GEORGE T. NEWELL, Jr.

Witnesses:

MAURICE BLOCH,
EDWARD A. JARVIS.