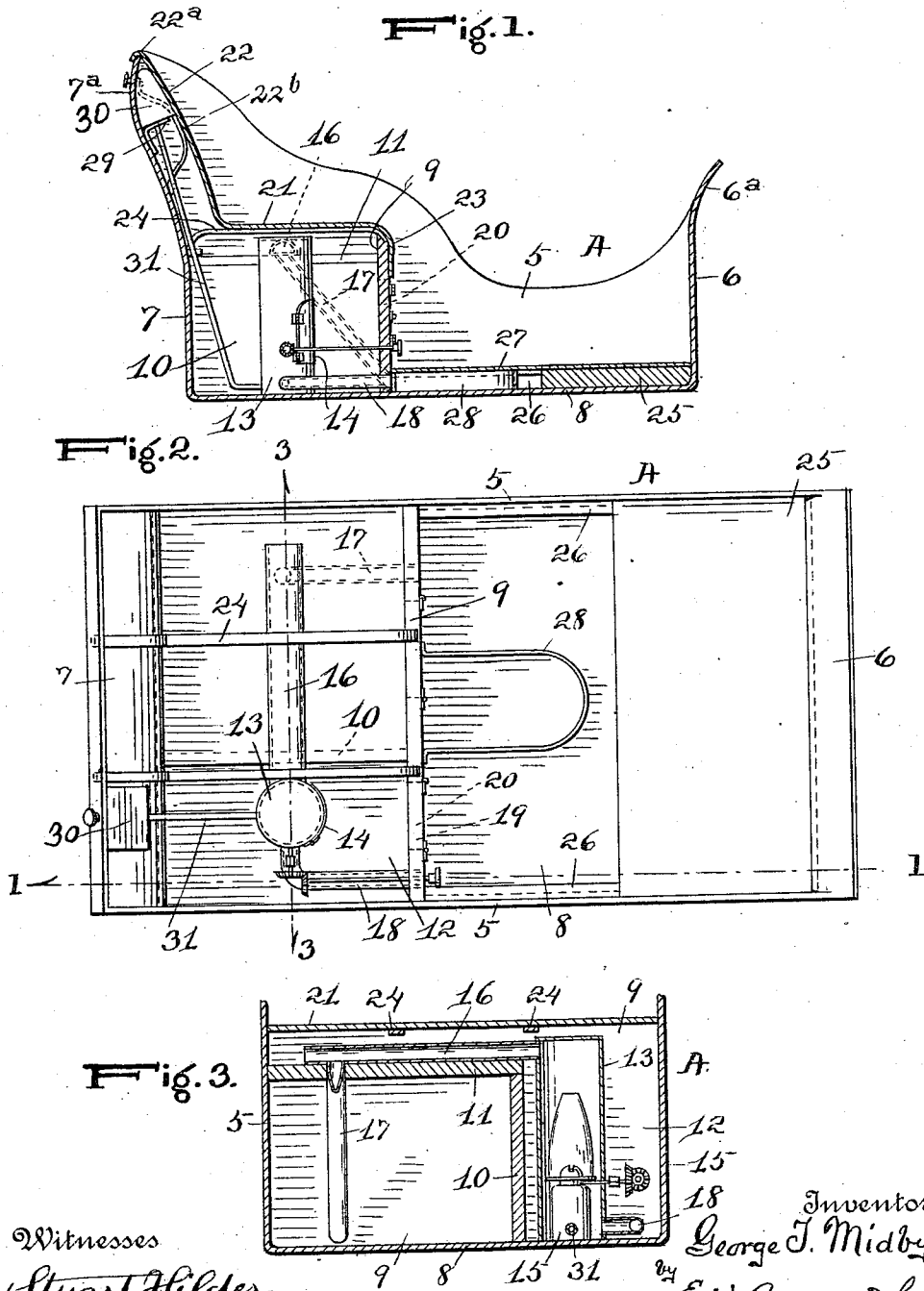


G. T. MIDBY.
HEATER.

APPLICATION FILED MAY 27, 1912.

Patented Dec. 3, 1912.

1,046,317.



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UNITED STATES PATENT OFFICE.

GEORGE T. MIDBY, OF PLENTYWOOD, MONTANA.

HEATER.

1,046,317.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE T. MIDBY, a citizen of the United States, resident of Plentywood, in the county of Valley and State of Montana, have made a certain new and useful Invention in Heaters; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical longitudinal section on the line 1—1, Fig. 2, of a sleigh constructed in accordance with my invention. Fig. 2 is a plan view of a sleigh constructed in accordance with my invention, with the seat and the false bottom removed. Fig. 3 is a section on the line 3—3, Fig. 2.

The invention has relation to heaters which are adapted particularly for use with sleighs and other vehicles.

The main object of the invention is to provide means for keeping the seat and floor of the vehicle in a heated condition.

A further object of the invention is to provide means whereby the heated air will circulate under the seat, and under the floor.

A further object is to provide a sleigh body well capable of being heated, which is composed of few parts, and is strong and durable.

The invention consists in the novel construction and combinations of parts, as hereinafter set forth, it being understood that various changes in the form, proportions, size, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit of the invention.

In the accompanying drawings illustrating the invention, the letter A, designates a sleigh body, which includes the usual side walls 5, 5; front end wall 6; rear end wall 7, and bottom 8, said body being preferably formed from sheet metal. The upper edges of the front and rear walls are curved at 6^a, and 7^a respectively.

Secured to the bottom 8, and side walls 5, 5, and disposed in spaced relation to the rear wall 7, is a transverse partition 9; the bottom 8, rear wall 7, and partition 9, being connected by means of a longitudinal partition 10 located intermediately of the side

walls 5 and terminating at its upper end in contact with a horizontal partition 11, said horizontal partition extending across the body to one of the side walls 5. By this means there is provided at the rear of the partition 9, a lamp chamber 12, in which is mounted a lamp casing 13, having a door 14. A heater or lamp 15 is located in this casing. Extending from the upper end of the casing is a transverse hot air conduit 16, said conduit resting upon the horizontal partition 11, and having its outlet end spaced apart from the adjacent side wall 5 of the body. A pipe 17, has one end passing through the partition 11, in communication with the conduit 16, the other end of said pipe projecting through the lower portion of the partition 9, adjacent to the bottom 8.

Communicating with the lower end of the casing 13, is one end of an air inlet pipe 18, said pipe having its other end projecting through the transverse partition 9, adjacent to the bottom thereof.

Formed in the partition 9, adjacent to the casing 13, is an opening 19, having a door 20, by means of which the door 14 of the casing may be readily reached for convenient access to the lamp.

My invention further comprises a seat 21, which is also preferably formed of sheet metal, and is bent longitudinally to form a back 22, the longitudinal edge 22^a of which is rearwardly curved for engagement with the upper edge of the curve 7^a of the rear wall 7, the front edge of said seat being also curved at 23, for engagement with the top of the partition 9. A pair of spring rods or bars 24, 24, rest upon the top of the transverse partition and having connection at their rear ends with the rear wall of the sleigh, said rods serving to support the seat. The back 22, of the seat is spaced apart from the rear wall 7, this relation being preserved by means of bowed brackets 22^b. The seat is held in raised position above the partition 11, by the rods 24. The hot air from the conduit 16 may readily circulate under the seat and in rear of the back 22.

Attached to the front portion of the bottom 8 is a filler block 25, and secured to the side walls 5, intermediate of said block and the transverse partition are angle bars 26, the upper faces of said bars being in the same plane as the upper face of said block. A false bottom 27, is secured upon the angle

bars 26 and the block 25. By this means the false bottom is held spaced from the bottom 8 of the body to form a hot air compartment. Some of the hot air which passes
 5 through the conduit 16, will pass downwardly through the pipe 17, and thence into the compartment below the false bottom 27, and will return to the lamp casing 13, by way of the air inlet pipe 18. In order to
 10 convey the hot air forwardly of said compartment, a baffle plate 28 is provided between the bottom 8 and the false bottom 27.

Secured to the inner face of the rear wall 7 are a spaced pair of brackets 29, which
 15 support a gasoline or other fuel tank 30, said tank being located in the angle between the wall 7, and the seat back 22, and being connected to the heater 15 by a pipe 31.

The hot air from the heater will have circulation under and in rear of the seat and in the floor of the vehicle thus insuring warmth to the occupants of the vehicle.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. In a vehicle body, a seat, a false bottom therefor spaced apart from the seat bottom, a floor having a false bottom spaced apart therefrom, said seat having a vertical
 30 compartment at one end thereof, a heater located in said compartment, a hot air duct leading from said heater and communicating with the space between the seat and its false bottom and the space between the floor and its false bottom, and a hot air duct
 35 leading from said last named space and communicating with the heater.

2. The combination with a vehicle body including a bottom, side walls and a rear
 40 wall, of a seat having a forward downwardly extending wall connecting said side walls and spaced apart from said rear wall, and a back wall spaced apart from said rear wall, a vertical longitudinal partition located
 45 intermediately of said side walls and connecting said forward wall and said rear wall, a false bottom for the vehicle spaced apart from the vehicle bottom, a false bottom for said seat extending from one side

wall spaced apart from the seat bottom and
 50 terminating at said partition to provide a vertical compartment communicating with the space between the seat and its false bottom and with the space between the back wall of the seat and the rear wall of said
 55 body, a heater located in said compartment, a hot air duct leading from said heater and communicating with the space between the seat and its false bottom and the space between the floor and its false bottom, and a
 60 hot air duct leading from said last named space and communicating with the heater.

3. The combination with a vehicle body including a bottom, side walls, and front and rear end-walls, of a transverse partition
 65 connecting the bottom and side walls and spaced apart from the rear end-wall, a seat supported at its front edge upon said partition, a back for the seat spaced apart from the rear end-wall and having its upper end
 70 connected to the upper edge of the rear wall, a longitudinal partition connecting the bottom, rear wall, and the transverse partition and located intermediately of the side walls, a horizontal partition extending from the
 75 longitudinal partition to one of the side walls, a casing supported upon the bottom of the vehicle intermediately of said longitudinal partition and the other side wall, a hot air conduit projecting from the upper
 80 end of said casing over said horizontal partition and terminating in spaced relation to the adjacent side wall, a false bottom forwardly of said transverse partition and above and spaced apart from the bottom of
 85 said body, a hot air conduit communicating at one end with the first named conduit and at its other end with the space under said false bottom, a heater within said casing, and an air inlet pipe communicating at one
 90 end with the space below said false bottom and at its other end with said casing.

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

GEORGE T. MIDBY.

Witnesses:

HENRY O. ROWER,
 N. L. NELSON.