No. 662,911. Patented Dec. 4, 1900.

J. E. BROWN.

ELECTRIC HEATER.

(Application filed Jan. 24, 1900.)

(No Model.)

Fig. 1.

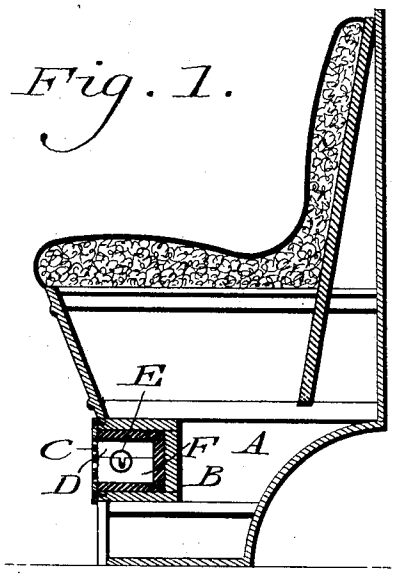


Fig. 2.

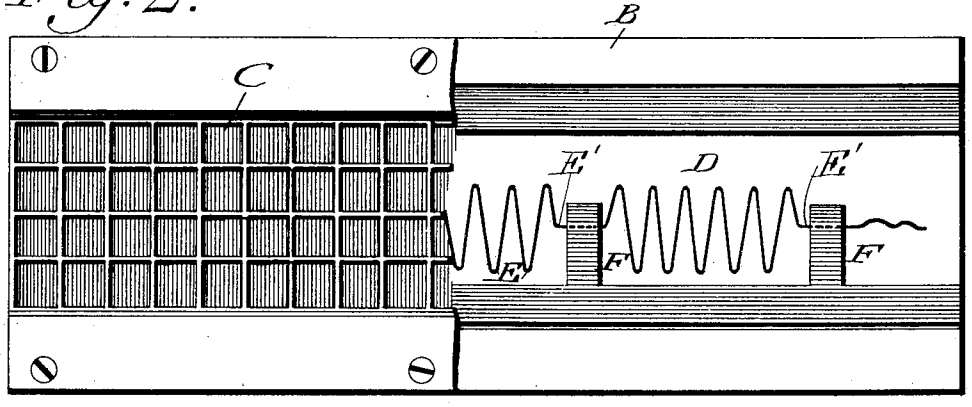
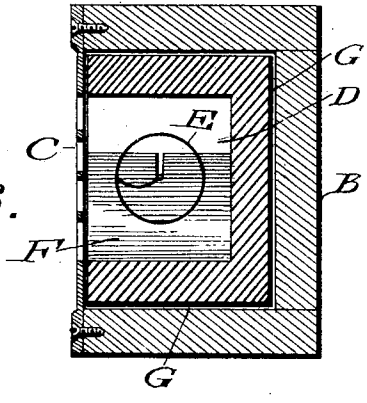


Fig. 3.



Witnesses

P. F. Dagle.

Howard Cobb Kennedy.

Inventor

By John E. Brown.

Wiederhein & Fairbanks.

Attorneys

UNITED STATES PATENT OFFICE.

JOHN E. BROWN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-THIRD TO JOHN J. SHANFELTER, OF SAME PLACE.

ELECTRIC HEATER.

SPECIFICATION forming part of Letters Patent No. 662,911, dated December 4, 1900.

Application filed January 24, 1900. Serial No. 2,564. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. BROWN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Electric Heaters, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an electric heater for a car, an apartment, &c., embodying a chamber formed of or lined with non-conducting and fireproof material having an ear integral with one of the walls of said chamber projecting therein and an electric conductor or resistance supported on said ear, whereby heat is obtained in an effective, simple, and inexpensive manner, short-circuiting is prevented, and provision made for preventing improper radiation of the same and burning of adjacent parts or in the case of a car for preventing direct heating of the seat thereof, as will be hereinafter set forth.

Figure 1 represents a vertical section of an electric car-heater embodying my invention. Fig. 2 represents a front view thereof, partly broken away and made on an enlarged scale. Fig. 3 represents a vertical section of the heater, the same as in Fig. 1, but on an enlarged scale and showing an air-space between the body of the heater and the receiving-case.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the frame below the seat of a car, and B designates a case within said frame, the same being covered in front by the open face-plate C, formed, preferably, of metal. Within the case B is the chamber D, comprising top, rear, and bottom walls, of cement or other material of non-conducting and fireproof nature, the front of said chamber being open, so as to be in communication with the openings of the face-plate C. Within the chamber D is an electric conductor or rheostat-coil E, which is supported on the ears F of non-conducting and fireproof material on either wall of said chamber D, said coil being adapted to be electrically charged in any suitable manner, whereby heat is generated, the same escaping from the chamber into the car through the plate C, it being noticed that the heat is prevented from being lost at the top, rear, and bottom walls of the chamber D and that the seat is not directly heated by the chamber, which otherwise is an objectionable feature, and burning of the frame and seat, &c., cannot occur, it being seen that the ears F are integral portions of or otherwise connected as one with the wall from which they project, so that the chamber D with said ears F and the conductor may be moved together into and out of their place of location without dismembering the parts other than the removal of the face-plate C. A space G exists around the top, rear, and bottom of the chamber D to permit the circulation of air and assist in keeping the exterior of said chamber in cool condition, said space, if desired, being increased in size, as shown in dotted lines, Fig. 3.

It will be seen that I provide a simple, inexpensive, and effective heating device for the purpose intended.

The rheostat or resistance coil E is formed in sections, the adjacent axes being connected by a comparatively straight or uncoiled part forming reduced necks E′, whereby the coil may be fitted into the chamber D at the open front face thereof and the necks E′ inserted in the open slots in the ears F, thus supporting the coil. When it is desired to remove the coil, the face-plate need only be disconnected and the coil lifted out of the ears F and withdrawn from the chamber without dismembering the latter or the necessity of unscrewing nuts, bolts, or the like, as none of the latter exists in my construction. The coil may then be restored or replaced in as convenient a manner as it was removed.

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

1. A chamber formed of material that is a non-conductor of electricity and fireproof and composed of top, bottom and rear walls and a slotted ear within the same, and a resistance-coil supported in the slot of said ear, said walls and ear being integral.

2. An electric heater consisting of a chamber formed of material that is a non-conductor of electricity and fireproof and composed

of top, bottom and rear walls, slotted ears projecting into and formed integral with said chamber, and a resistance composed of coiled sections, and reduced necks joining said sections and fitted in the slots of said ears.

3. A chamber formed of material that is a non-conductor of electricity and fireproof and composed of top, bottom and rear walls and a slotted ear within the same, a resistance supported in the slot of said ear, and a case receiving said chamber, and spaced therefrom to form an air-passage.

JOHN E. BROWN.

Witnesses:
JOHN A. WIEDERSHEIM,
C. D. MCVAY.