No. 684,791. Patented Oct. 22, 1901.

E. R. CARICHOFF.

ELECTRIC RESISTANCE.

(Application filed Aug. 1, 1901.)

(No Model.)

Fig. 1.

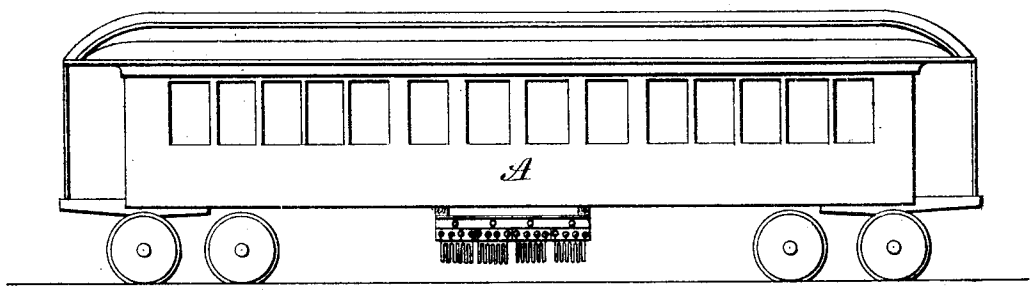


Fig. 2.

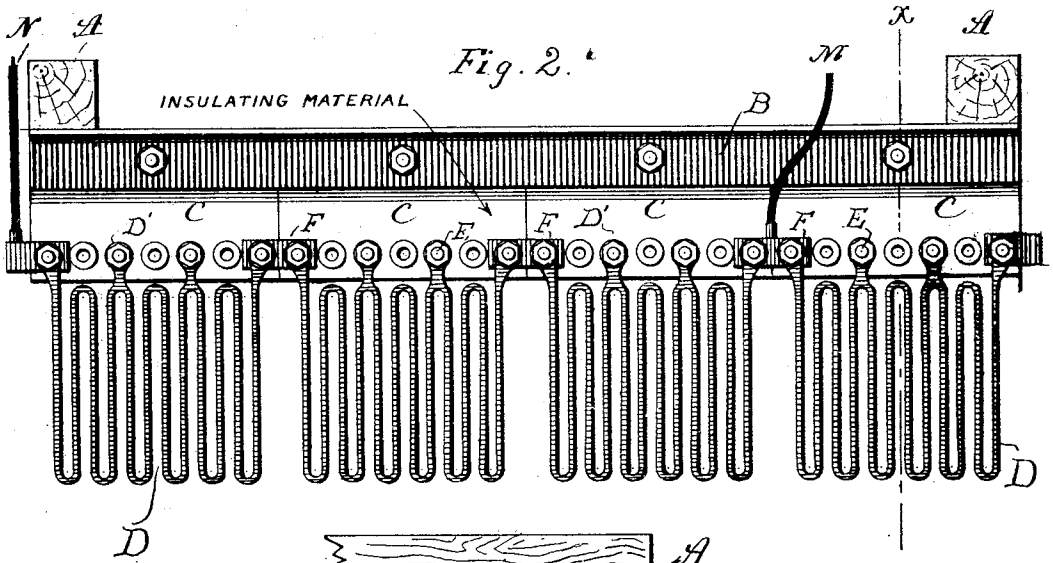
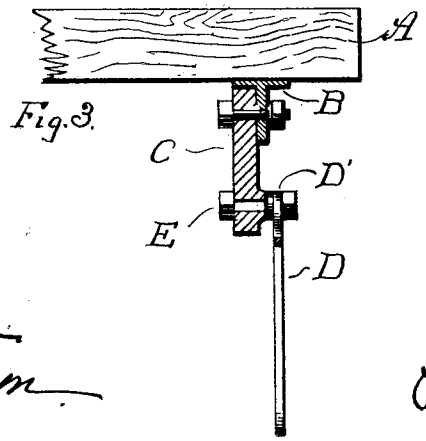


Fig. 3.



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UNITED STATES PATENT OFFICE.

EUGENE R. CARICHOFF, OF EAST ORANGE, NEW JERSEY, ASSIGNOR TO SPRAGUE ELECTRIC COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

ELECTRIC RESISTANCE.

SPECIFICATION forming part of Letters Patent No. 684,791, dated October 22, 1901.

Application filed August 1, 1901. Serial No. 70,466. (No model.)

To all whom it may concern:

Be it known that I, EUGENE R. CARICHOFF, a citizen of the United States, residing at East Orange, Essex county, New Jersey, have invented certain new and useful Improvements in Resistances, of which the following is a full, clear, and exact description.

My invention relates to electrical appliance, and particularly to resistance for car use.

An object of my invention is to provide a construction of a simple and economical form which may be readily installed, so that in the event of breakage new parts may be inserted easily and quickly.

Other objects which I have sought to attain are lightness and durability of construction, safety, and effectiveness of operation.

In the drawings, Figure 1 is a side elevation of a railway-car having my improved resistance suspended beneath it. Fig. 2 is a relatively-enlarged detail view of the preferred form of resistance shown in Fig. 1. Fig. 3 is a view partly in section upon line X X, Fig. 2.

A is a car-body. B is a supporting-beam in turn carried by said body or an extension therefrom.

C is a suitable insulation, preferably in the form of blocks of granite or other insulating material, which insulation may be secured to the beam B.

D is the resistance proper, which is in the form of a grid or grids composed of looped strips—for example, wire of suitable material to furnish the desired resistance. These grids are preferably made of a uniform length and are preferably provided at even intervals with eyes D′ D′, through which may pass suitable screws or bolts E, by which means the grids are attached to the insulating-blocks C. To facilitate connection, suitable holes or recesses may first be formed in the insulation, care being taken to arrange the same at regular intervals, so that eyes D′ D′ of the grid or grids will register therewith. It is my custom to form these grids of the same length as above stated; but in some cases the size of the wire employed may be changed to give more or less resistance, as required. Obviously any desired number of sections may be employed. When more than one section is used, the same may be coupled together by means of bridging-pieces F F.

M N are terminals which may be connected to the resistance at any point or points—for example, as shown in the drawings, in which the terminals M N are connected to the bridging-pieces F F. A bolt or screw passing through any eye of the grid furnishes ready means for attaching these terminals at convenient points.

In use the grids are suspended beneath the car, where they are exposed to free air circulation, and are consequently well ventilated. By this means the temperature of the resistance may be kept down. By placing the resistance underneath the car and securing it to the aforesaid sections of granite block it is well insulated from all conductive material and there is no danger of overheating or setting fire to any portion of the car, by reason of the fact that there is no possibility of the car-body coming in contact with said resistance.

The open accessible location of the resistance makes it possible to easily and quickly replace or change the resistance and also permits of the rapid inspection thereof.

In actual practice I form the looped grid of cast-iron, which I find gives superior results, not only in that cast-iron is an effective resistance material, but it also is cheap and sufficiently stiff and rigid to properly retain its form and be in a comparatively large degree self-supporting.

What I claim is—

1. A resistance for car use, comprising a support, an insulating-block, a grid comprising a looped strip of resistance material, said grid being suspending and depending from said insulating-block, and means for securing said grid to said block.

2. A resistance for car use, comprising a support, insulating-blocks, grids composed

of looped strips of resistance material, and means for connecting said grids to said blocks, and means for effecting terminal connections.

3. A resistance for car use, comprising sectional resistance-grids, sectional insulating-blocks for supporting said grids, means arranged at desired intervals for facilitating the connection of said grids to said blocks, means for effecting the connection of said grids to said blocks, and means for connecting terminals to said grids.

Signed at New York, N. Y., this 19th day of July, 1901.

EUGENE R. CARICHOFF.

Witnesses:
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L. VREELAND.