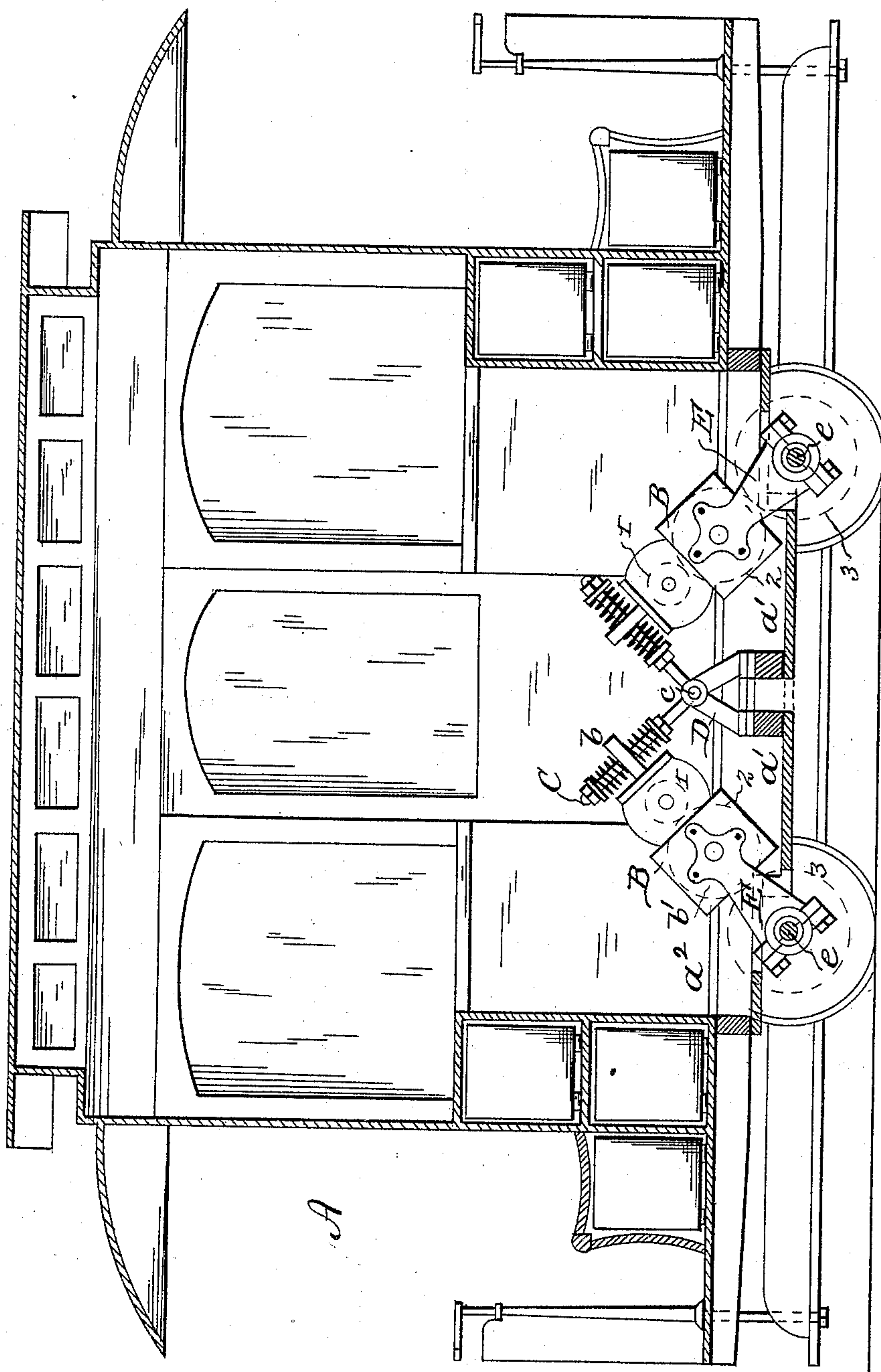


(No Model.)

J. A. BRILL.
ELECTRIC MOTOR CAR.

No. 426,658.

Patented Apr. 29, 1890.



WITNESSES:

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JOHN A. BRILL, OF PHILADELPHIA, PENNSYLVANIA.

ELECTRIC-MOTOR CAR.

SPECIFICATION forming part of Letters Patent No. 426,658, dated April 29, 1890.

Application filed February 18, 1890. Serial No. 340,896½. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. BRILL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Electric-Motor Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to separate or other electric-motor cars wherein the motor is entirely located above the floor of the car and is partly supported at one end, an arm or arms sleeved or journaled upon a car-axle and in direct gear therewith, and at the other end is supported upon the car or a fixture thereon so as not to be subject to the action of the car-springs, leaving ample space below the floor and between the axle-supports for the motor for brake or other attachments, as fully shown, described, and broadly claimed in another pending application of even date herewith, Serial No. 340,895½.

My present invention has for its object the specific form of mounting or supporting the one end of said motor on the car-body and the other end on the axle with which it is in gear; and it consists of the combinations, constructions, and arrangements of parts, as hereinafter described in the specification, and pointed out in the claims.

Reference being had to the accompanying drawing, which represents a section of part of a motor-car with electric motor or motors supported thereon in accordance with my invention, A represents an electric-motor car, which may be a separate motor or other car, as desired, of any desired make or style, preferably having a depressed floor a' in the longitudinal center of the main floor a^2 ; or, instead of a single depressed floor a' , one or two such depressions may be made on either side of the transverse center of the main floor a^2 , as indicated in full lines of the drawing, for the purpose of providing two separate motors, one in each of said depressions for the two axles of the car. The running-gear may be secured to the sills of the car-body, as usual, or to a truck-frame rigidly secured to the car, as set

forth in another pending application filed by me the 25th day of June, 1888, Serial No. 278,160.

The electric motor (indicated at B) is entirely located above the floor a' of the car and may be of any suitable form, one end b of which has a spring or yielding support on a rod C, pivoted or otherwise connected at c to a fixed support D, secured to the floor a' of the car-body. The other end b' of said motor is secured to arms E, which in turn are mounted on the car-axle e , and the armature-shaft b^2 of the motor is in gear by way of counter-shaft b^3 and gear-wheels 1 2 3 with said axle e . As shown, a motor is provided for each car-axle, and each motor is partly supported by the arms E upon a car-axle and in gear with said axle of the car and partly supported upon the car-body floor and yields to the action of the car-springs. In all cases, however, the motor is located above the car-floor for purposes of inspection, for easy access thereto, and for excluding dust and dirt therefrom.

The car may be a separate motor-car, with or without end platforms and seats on said platforms and storage-batteries, either under said seats or within the car-body transversely thereto, as fully shown, described, and claimed in an application of even date herewith, Serial No. 340,895½.

I do not herein claim, broadly, a motor partly supported upon arms sleeved at one end to the axle and partly upon a car and located entirely above the floor of the latter, as the same forms the subject-matter of the above last-named application.

I am aware that motors journaled at one end directly upon the axle and partly projecting above the car-floor are old; but they differ from my invention in that they are not entirely with the car or under the inspection of the engineer.

What I claim is—

1. In an electric-motor car, a motor located entirely above the car-floor, arm or arms journaled at one end on a car-axle for supporting one end of said motor, a bracket secured to the car-floor within the car-body for supporting the other end of the motor, and gear-connections between said motor and axle, substantially as set forth.

2. In an electric-motor car, a main floor hav-
ing a depressed floor a' , an electric motor lo-
cated within the car, arms swiveled at one
end on a car-axle and projecting through said
5 floor a' for supporting one end of the motor,
a bracket within the car secured to said floor
 a' , a yielding or spring connection between
said bracket and the other end of the motor,
and gear-connection between the motor and
10 axle, substantially as set forth.

3. In an electric-motor car, a motor located
entirely above the car-floor, arm or arms jour-
naled at one end on a car-axle for support-

ing one end of said motor, a bracket secured
to the car-floor within the car, yielding sup- 15
ports on said brackets for supporting the other
end of the motor, and gear-connections be-
tween said motor and axle, substantially as
set forth.

In testimony whereof I affix my signature in 20
presence of two witnesses.

JOHN A. BRILL.

Witnesses:

R. S. REED,
R. HAWKINS.