

J. LOCKHART.
Motor for Street Cars.

No. 231,183.

Patented Aug. 17, 1880.

FIG. 1.

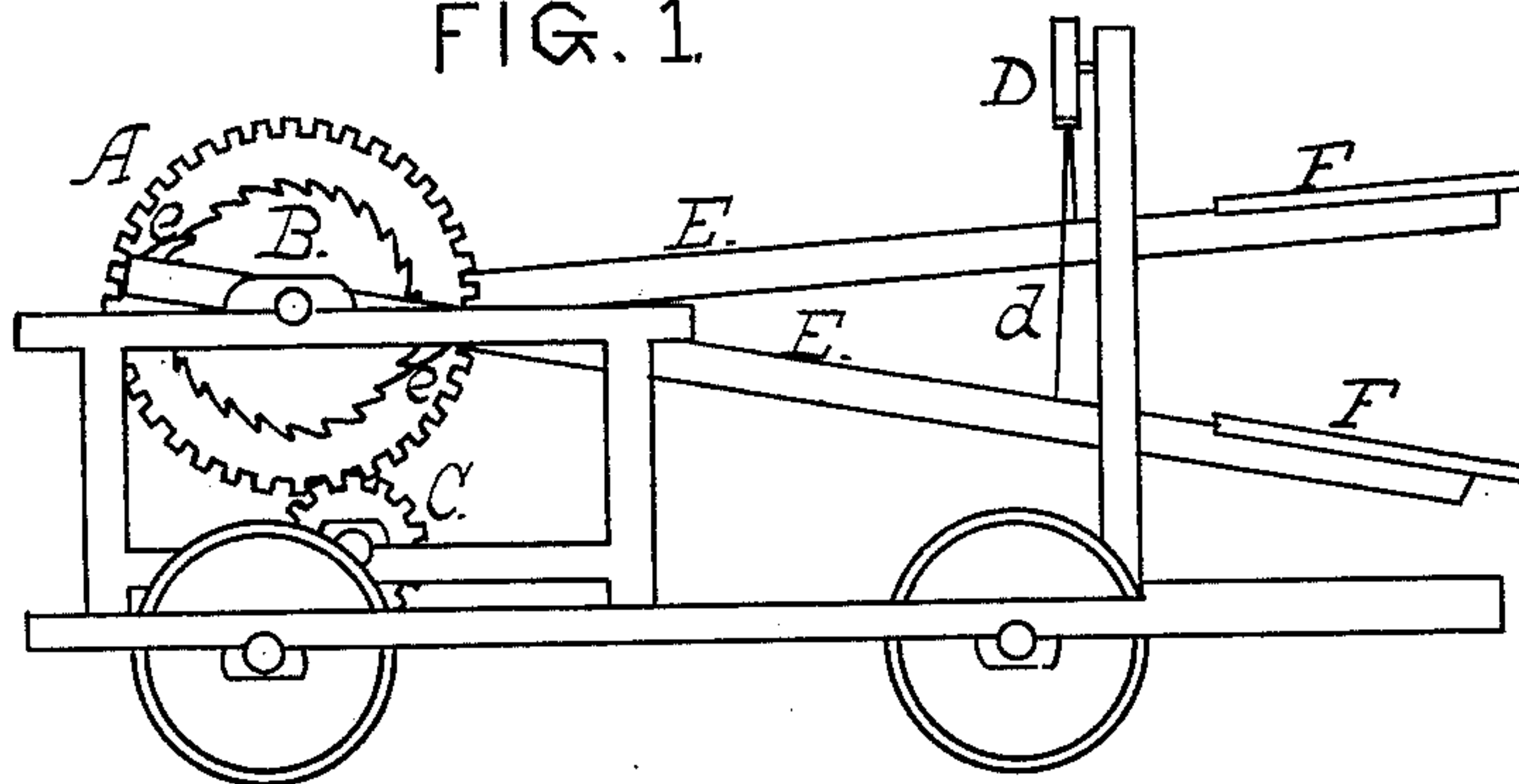


FIG. 2.

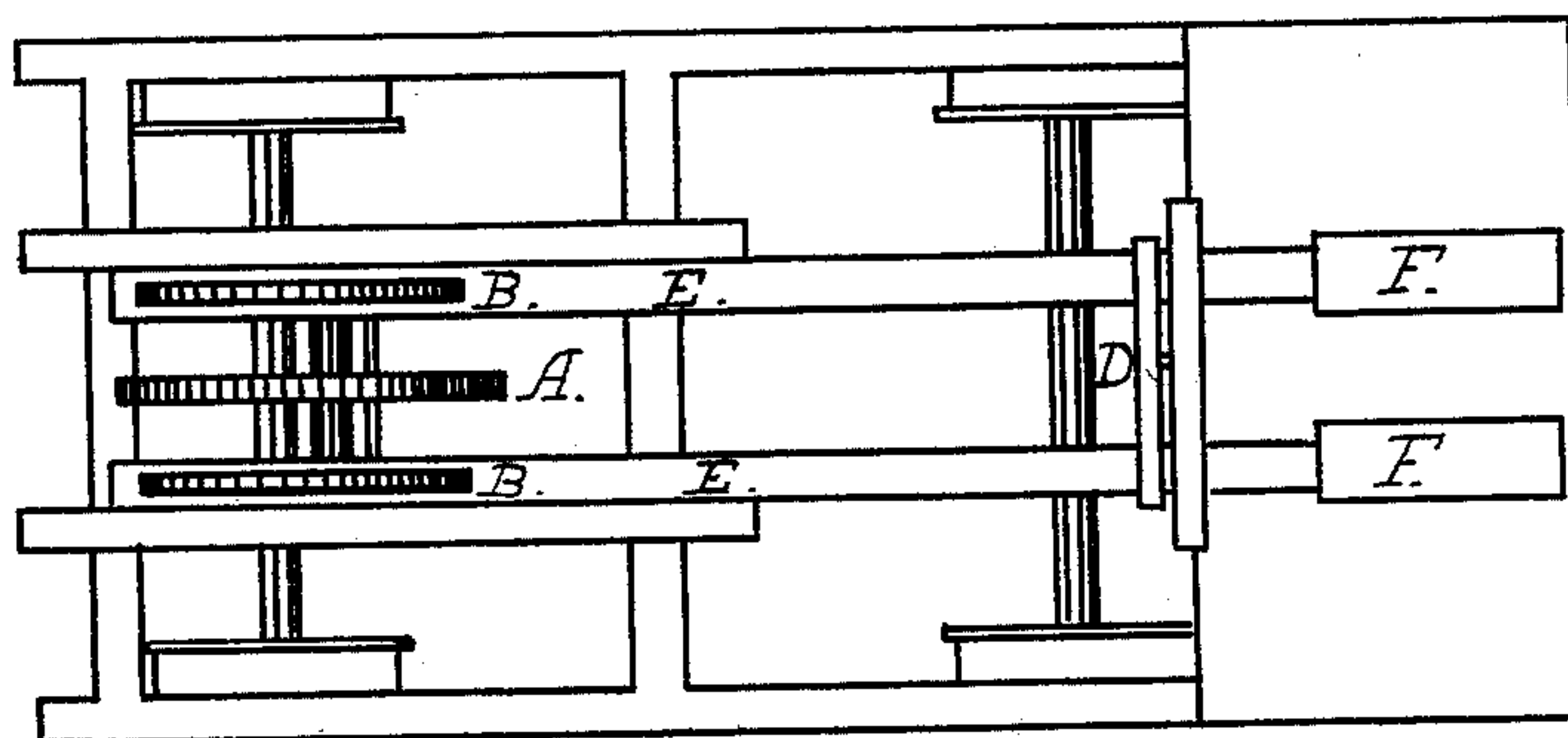
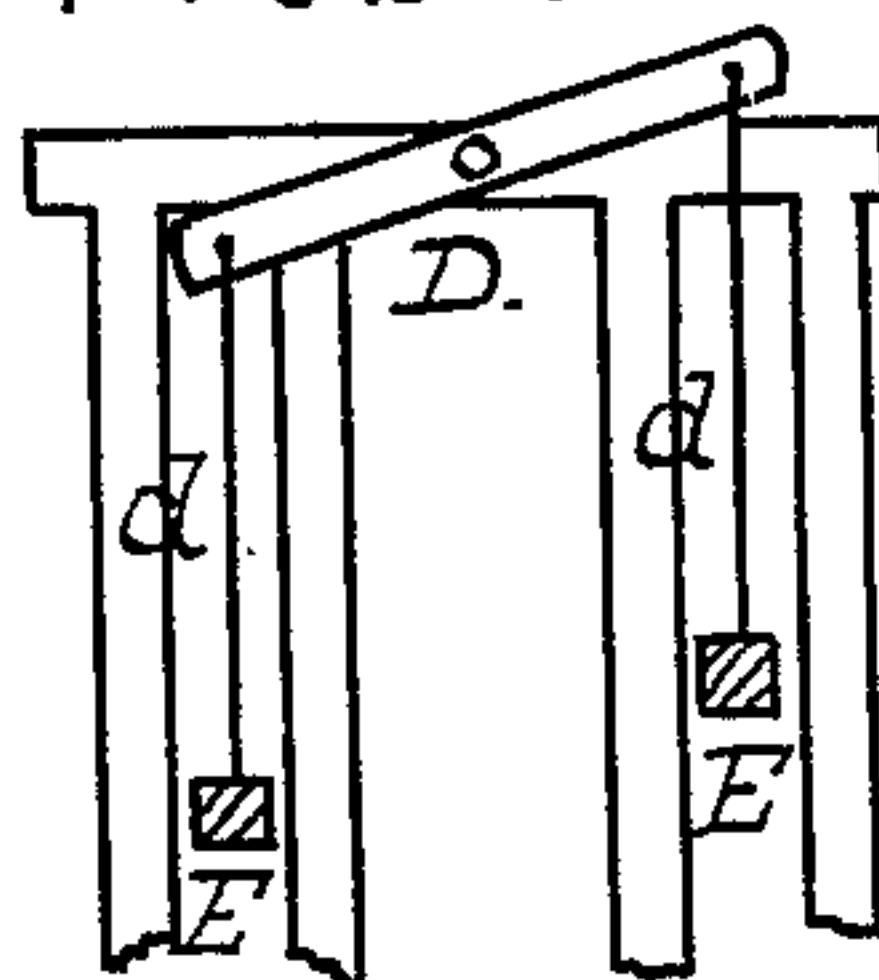


FIG. 3.



WITNESSES

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JESSE LOCKHART, OF MACON COUNTY, ILLINOIS.

MOTOR FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 231,183, dated August 17, 1880.

Application filed September 15, 1879.

To all whom it may concern:

Be it known that I, JESSE LOCKHART, a resident of the county of Macon and State of Illinois, have invented certain new and useful
5 Improvements in Motors for Street-Cars and other purposes, of which the following is a true and correct description.

My invention consists in a combination of ratchet and cog wheels connected with the
10 driving-wheels of a car, and operated by a pair of levers which engage the ratchet-wheels alternately, in a manner to be hereinafter set forth.

In the drawings accompanying and forming
15 a part this specification, Figure 1 is an elevation, and Fig. 2 a plan, of my invention, while Fig. 3 is an end elevation of lever-beam by means of which the motion of the driving-levers is made reciprocal.

20 A is a large cog-wheel rigid on the shaft, with ratchets B B. C is a pinion connected with wheel A and with a cog-wheel on the car-wheel shaft. E E are levers provided with
25 pawls *e e* on opposite sides of ratchets B B, and connected with lever-beam D by means of rods *d d*. F F are pedals on levers E E.

In operation the weight of the operator is thrown on either lever alternately, causing a

part revolution in wheel A, and through it to the wheels of the car, at each change of position. The lever-beam D causes one lever to become elevated as the other is depressed, thus making a continuous motion possible.

I am aware that motors have been made with cog-gearing, ratchets, and double pawls, also with the double tread-levers connected
35 with each other by a cord passing over pulleys, and I do not claim such; but

I claim as new and of my invention—

In a car-wheel motor, the combination, with
40 the ordinary frame-work and axles, upon one of which is placed a cog-wheel, of the intermediate pinion, C, the large cog-wheel A, the smaller ratchets B, mounted upon the same shaft with the cog-wheel, the levers E, provided with the pawls *e e*, one on top and one
45 beneath, and the treads F on the long end of the levers, and the rocking beam D, connected with the levers E by means of the rods *d*, substantially as shown, and for the purpose set
50 forth.

JESSE LOCKHART.

Witnesses:

J. S. POST,
J. M. LOWRY.