

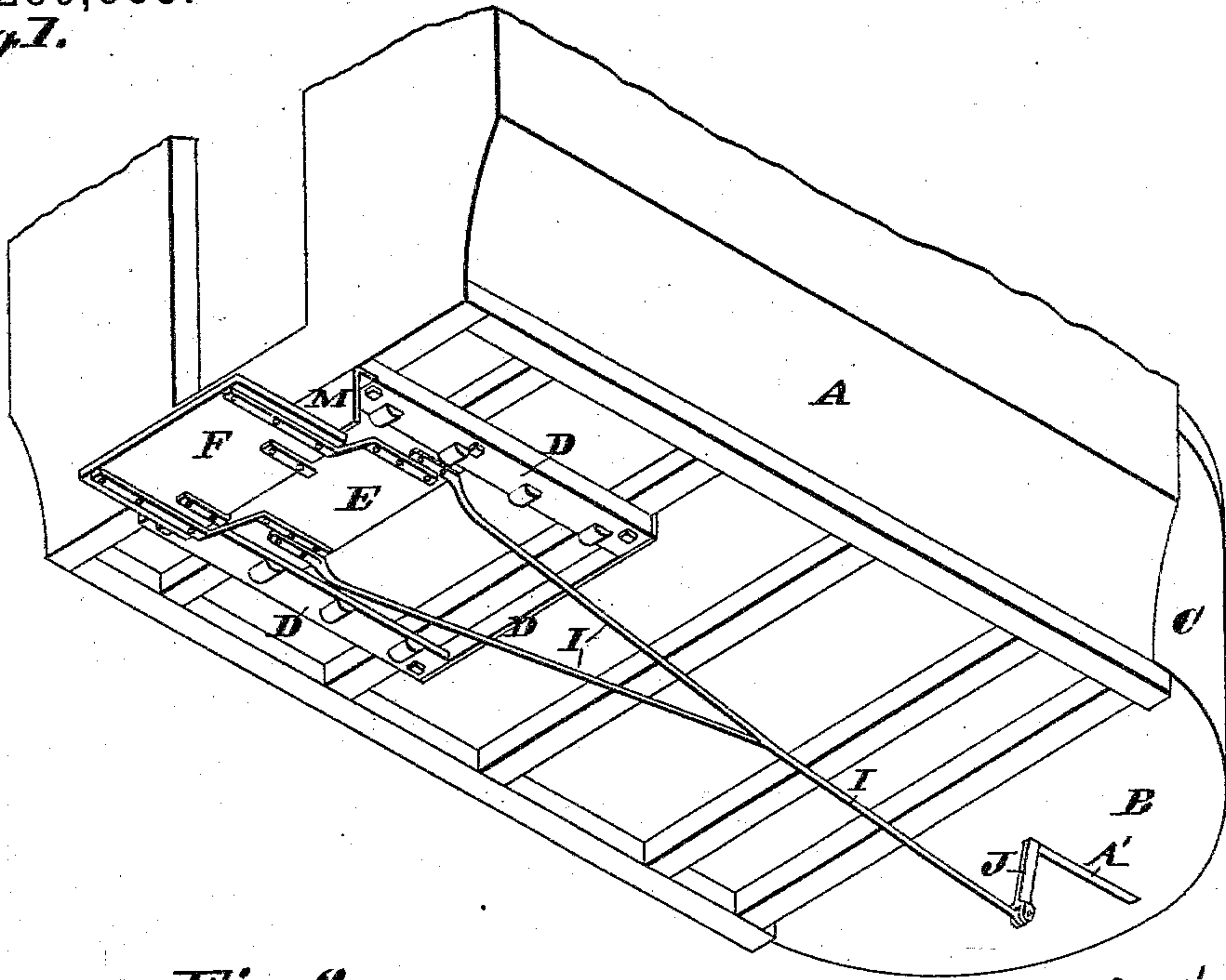
(No Model.)

B. J. J. TOWNSEND.  
STEP FOR STREET CARS.

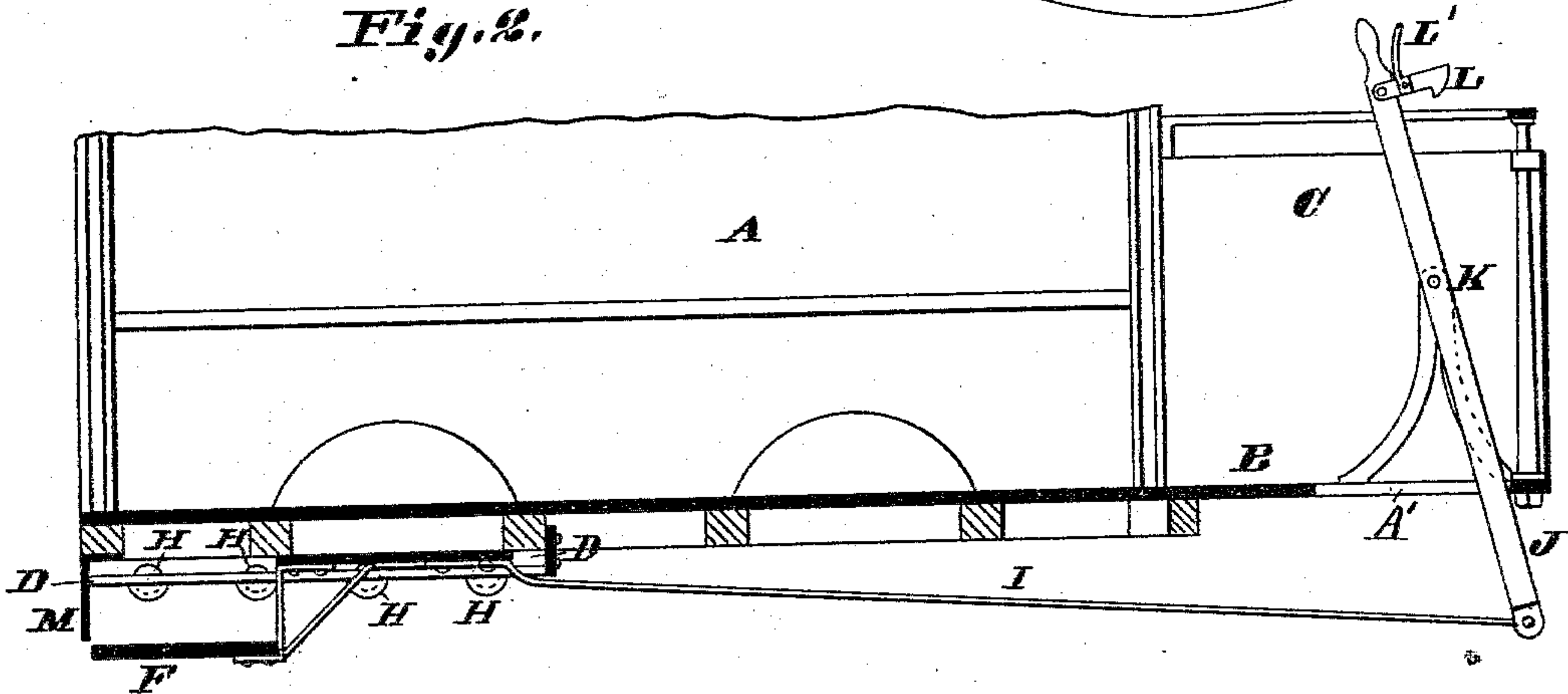
No. 280,883.

Patented July 10, 1883.

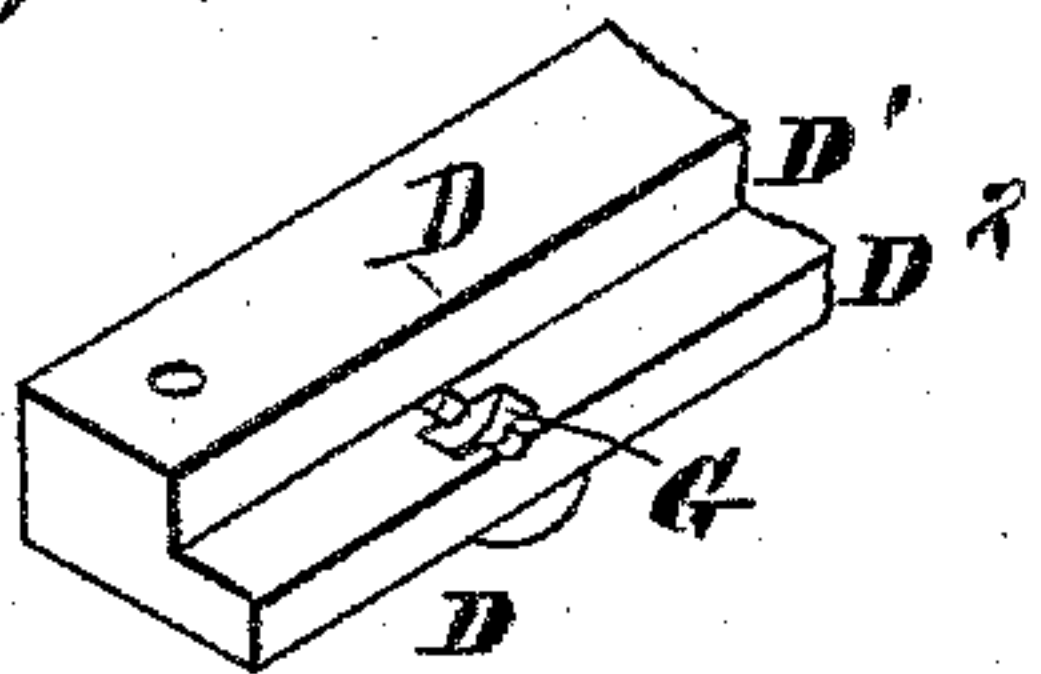
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Attest:  
Albert G. Fish  
Charles Buckley

Inventor:  
Beason J. J. Townsend  
By Knight Bros.  
Atty.



# UNITED STATES PATENT OFFICE.

BEEASON J. J. TOWNSEND, OF ST. LOUIS, MISSOURI.

## STEP FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 280,883, dated July 10, 1883.

Application filed March 8, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, BEEASON J. J. TOWNSEND, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Steps for Street-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 My improvement consists in making the rear step of a one-ended car to slide beneath the same, the step being advanced or retracted by a device operated by the driver on the front platform, as hereinafter described, and pointed  
15 out in the claims.

In the drawings, Figure 1 is an under perspective view of a street-car with my improvement applied thereto. Fig. 2 is a longitudinal vertical section through the middle of the car. Figs. 3, 4, and 5 are details that are shown in perspective, and will be referred to by letter.

A is the car-body, about which no novelty is claimed.

25 B is the front platform, on which the driver stands.

C is the front wall of the platform.

30 D D are longitudinal cleats that are attached to the under side of the car-body, and which have upon the inner sides rabbet-grooves D', (see Fig. 3,) to receive the edges of the sliding frame E, to which the step F is attached. The flange D<sup>2</sup>, forming the under side of the groove D', is shown with slots or recesses G, that receive anti-friction rollers or wheels H, (see  
35 Figs. 3 and 4,) upon which the frame E is supported in such a manner that it can be easily pushed backward and forward. When the seat is in its rear position, as shown in Fig. 1, it is in position for the use of passengers entering or  
40 leaving the car, whereas when in its forward position the step is beneath the car and cannot be used.

I is a rod whose rear end is attached to the frame, and whose front end is connected to the  
45 lower end of the lever J by means of a hinge-joint at I'. The lever J is supported on a

fulcrum, K, and extends from the fulcrum downward through a slot, A', in the floor of the car, and upward to a convenient position for the hand of the driver. The lever has near 50 the upper end a drop-catch, L, that takes over the rail forming the top of the wall C, when the upper end of the lever is in its forward position and the step projected behind the car-body. The catch has an upwardly-extending 55 handle, L', by which it can be raised to free the upper end of the lever for its backward movement to draw the step beneath the car.

There are various advantages gained by making the step movable and under control of the driver. In this case the driver is able to prevent unauthorized persons riding on the step, and to prevent children playing upon the car-step to their own risk of injury, to the irritation of the driver and passengers, and to the 65 great inconvenience of the latter in entering and leaving the car.

M is a fixed guard that descends in close proximity to the top of the step to prevent the toe of a person catching between the step and 70 the car-body.

I claim—

1. The combination of horizontally-sliding step beneath the bottom of the rear end of the car, a lever at the forward end of the car, and 75 a rod connecting the step with the lever, as set forth.

2. The combination of horizontally-sliding frame E and step F, connecting-rod I, lever J, and catch L, as set forth. 80

3. The fixed guard M, in combination with the horizontally-sliding frame E, having step F, as set forth.

4. The combination of cleats D, having grooves D', forming flanges D<sup>2</sup>, recesses G, and 85 rollers H, frame E, riding on said rollers, having step F, rod I, and lever J, as set forth.

BEEASON J. J. TOWNSEND.

Witnesses:

SAML. KNIGHT,  
GEO. H. KNIGHT.