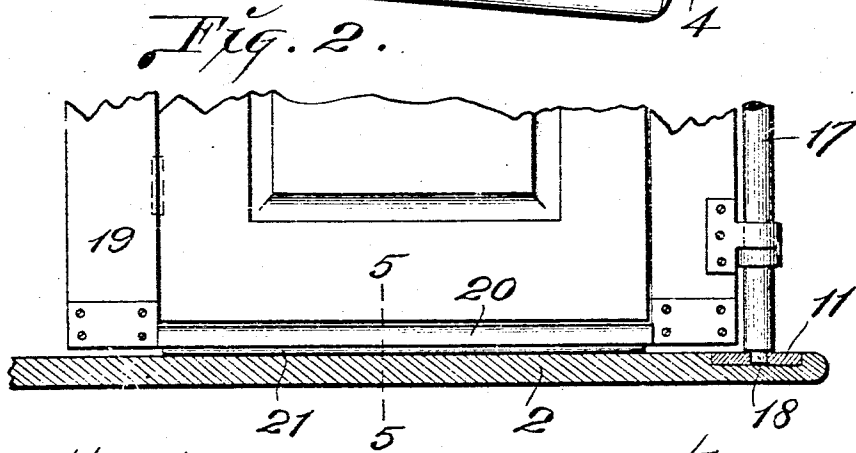
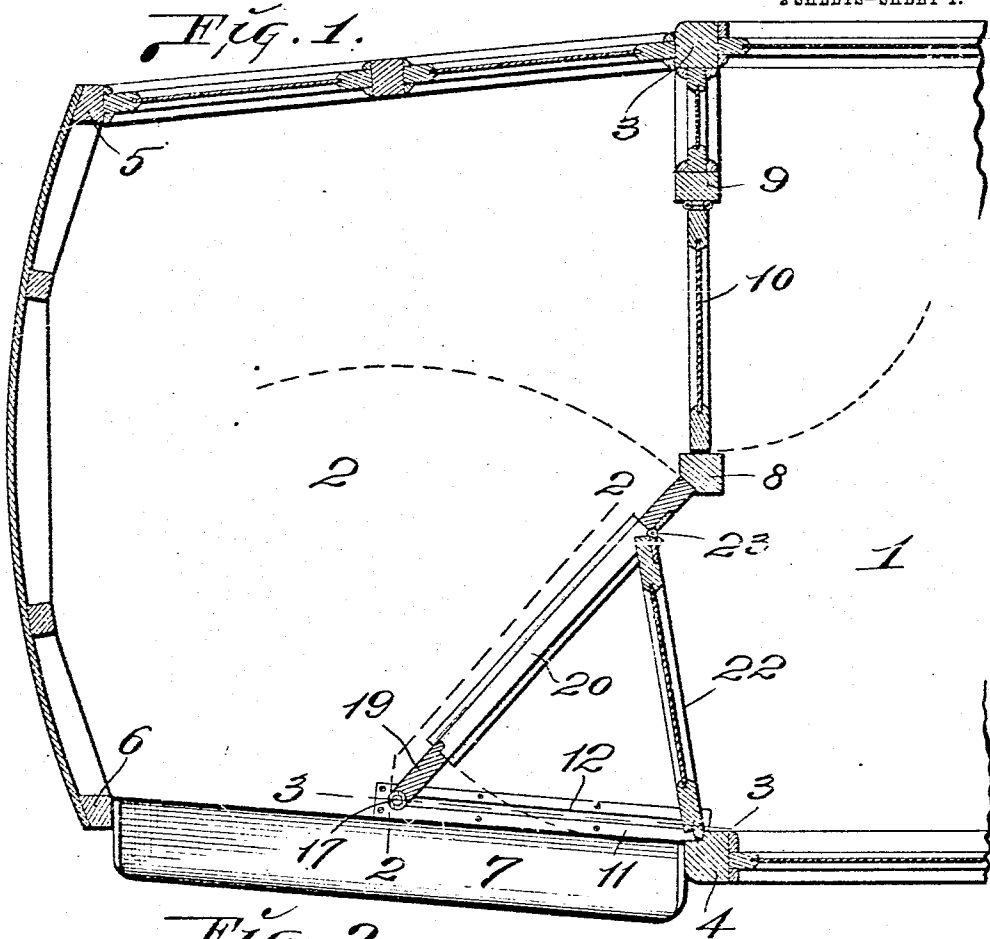


C. O. BIRNEY.
STREET CAR.
APPLICATION FILED MAR. 24, 1908.

949,878.

Patented Feb. 22, 1910.

2 SHEETS—SHEET 1.



attest,
W. L. Smith,
E. M. Harrington

Inventor,
Charles O. Birney,
By Higdon & Longan
Attys.

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2 SHEETS—SHEET 2.

Fig. 3.

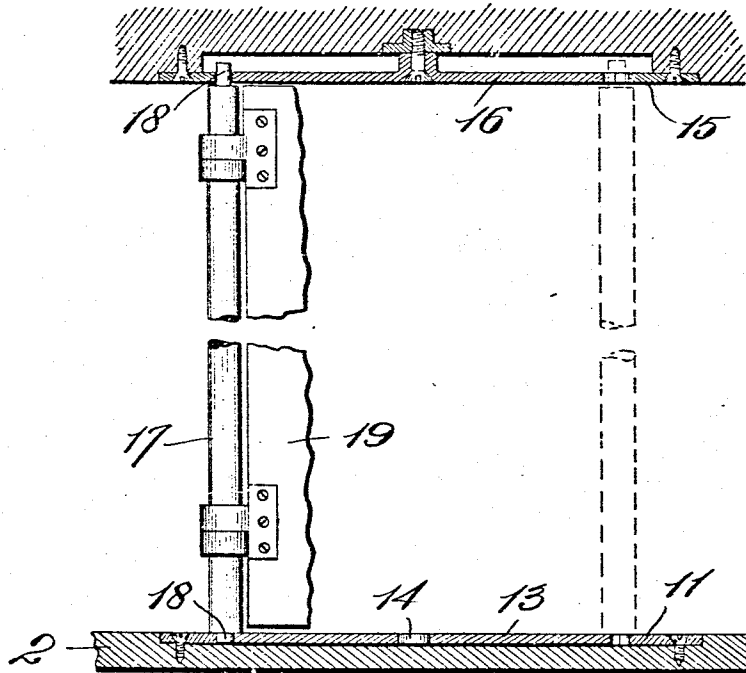


Fig. 4.

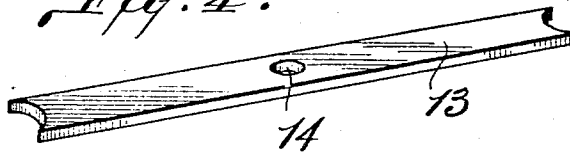
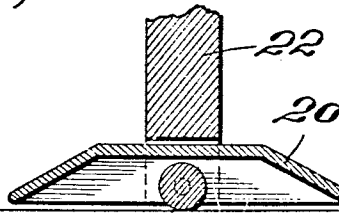


Fig. 5.



attest
W. O. Smith
E. M. Herrington

21 Inventor,
Charles O. Birney.
By Wigdon Longan, attys

UNITED STATES PATENT OFFICE.

CHARLES O. BIRNEY, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE PAY-AS-YOU-ENTER CAR CORPORATION, OF JERSEY CITY, NEW JERSEY, A CORPORATION OF NEW JERSEY.

STREET-CAR.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES O. BIRNEY, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Street-Cars, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates generally to street cars, and more particularly to the car platform and entrance, my object being to construct a car or car platform embodying what is commonly known as the pay-as-you-enter principle, which arrangement necessitates the provision of entrance and exit doors between the platform and body of the car, thus permitting all of the passengers entering the car to pass through one door and to pass through a second door when leaving the car, and the conductor being adjacent the entrance door, where he has full view of the entire platform, and is therefore in position to receive the fares of passengers entering the car and to properly signal the motorman or car driver.

A further object of my invention is to provide a hinged exit door frame which may be swung open when desired by the conductor, and which exit door frame and exit door are adapted to be moved into position to close the opening normally used as an exit, thus leaving the entire platform clear and unobstructed when occupied by the motorman or car driver.

To the above purposes, my invention consists in certain novel features of construction and arrangement of parts which will be hereinafter more fully set forth, pointed out in the claims, and illustrated in the accompanying drawings, in which:

Figure 1 is a horizontal section taken through the center of one end of a car body and platform constructed in accordance with my invention; Fig. 2 is an enlarged section taken approximately on the line 2-2 of Fig. 1, showing the lower portion of the exit door and its frame; Fig. 3 is an enlarged section taken on the line 3-3 of Fig. 1, showing the bearings for both ends of the movable post to which the exit door frame

is hinged; Fig. 4 is a perspective view of a filler plate which is utilized in closing the slots in the plates which receive the ends of the movable post; and Fig. 5 is an enlarged cross section.

Referring by numerals to the accompanying drawings: 1 designates the car body, 2 the platform thereof, and arranged at the end of the body adjacent the platform are the usual corner posts 3 and 4. Arranged at the outer corners of the platform are the vestibule posts 5 and 6, and arranged on the side of the platform between the posts 4 and 6 is a step 7.

Positioned between the car body and the platform at a point approximately half way between the corner posts 3 and 4 is a center post 8, and adjacent the corner post 3 is a post 9, to which is hinged an entrance door 10, of any suitable construction, the free edge of which swings against the center post 8.

Set into the edge of the platform 2, immediately adjacent the step 7 and extending approximately half way from the corner post 4 to the corner post 6 is a plate 11, provided with a longitudinally extending slot 12, and normally positioned in this slot 12 is a filler plate 13, in which is formed an aperture 14, which permits the plate to be engaged and removed when desired.

Positioned in the under side of the platform hood immediately above the plate 11 is a corresponding slotted plate 15, and removably positioned in the slot therein is a filler plate 16. An exit door post 17, preferably in the form of a heavy metal tube, is provided on its ends with pins 18, which engage in the plates 11 and 15.

Hinged in any suitable manner to the post 17 is an exit door frame 19, and fixed to the bottom thereof is a metallic threshold plate 20, beneath which is positioned and held for rotation a roller 21, which bears directly upon the platform 2. The door frame 19 is of such width as that when the post 17 occupies the outer ends of the slots in the plates 11 and 15, the free side of said frame bears against the center post 8, and thus entrance and exit passage-ways are formed on the platform leading into and

from the interior of the car. An exit door 22 is connected by means of hinges 23 to the door frame 19, and the said exit door being of such width as that when it is swung out of the door frame its free edge closes against the corner post 4, and thus said exit door, together with the entrance door 10, closes the openings between the car body and platform.

When a car of my improved construction is in use, the various parts are in the positions shown in Fig. 1, and the conductor being immediately adjacent the center post 8, where he is in position to receive the fares of the entering passengers, and where he has full view of the platform and step, and can therefore readily see the movements of the passengers, and thereby govern the signals to the motorman or car driver stationed on the opposite platform. The passengers entering the car pass between the posts 6 and 17, and after paying fare to the conductor enter the car by swinging the entrance door 10 inward, as shown by dotted lines in Fig. 1. The passengers leaving the car engage and swing the exit door 22 outward, as shown by dotted lines in Fig. 1, into position in the door frame 19, and said passengers now pass out through the space between the posts 4 and 17.

Should the conductor stationed on the car platform desire to assist a passenger to alight, the entire door frame 19 and the door 22 in said frame can be swung outward, as shown by dotted lines in Fig. 1, thus permitting the conductor to pass into the exit passage-way traversed by the passengers in leaving the car. When the entire door frame is thus swung open or closed, the roller 21 rides upon the car platform, thus making the movement of said door frame free and reducing the friction between the platform and said door frame, which latter is of considerable weight.

When it is desired to move the post 17 into position immediately adjacent the corner post 4, as is necessary when the car platform is transformed so as to be occupied by the motorman or car driver, the filler plates 13 and 16 are removed from the slotted plates 11 and 15, and the post 17 is moved into a position immediately adjacent the corner post 4, during which movement the pins 18 travel through the slots in said plates 11 and 15, and after this operation has been completed the filler plates are re-seated in the slots in the plates 11 and 15, and thus the entire platform is free and unobstructed, and that portion of the car between the platform and car body is entirely closed.

A car of my improved construction is comparatively simple, provides means whereby

passengers entering and leaving the car pass through separate doors, thereby avoiding confusion and crowding, and provision is made whereby the conductor remains at a fixed station, where he may readily receive the fares of all the passengers entering the car, and where he is in position to see the movements of the passengers getting on and off the car, and can therefore properly signal the motorman or car driver without danger of injury to passengers in the act of getting on or off the car.

I claim:

1. The combination with a street car of a post arranged on the car platform adjacent the step, a door frame hinged to said post, and an exit door hinged in the frame and adapted to normally close the exit opening in the end of the car.

2. The combination with a street car of a movable post arranged on the car platform adjacent the step, a door frame hinged to the movable post, and an exit door hinged to the door frame and normally closing the exit opening at the end of the car.

3. The combination with a street car of a movable post arranged on the car platform adjacent the step, a door frame hinged to the movable post, a roller arranged on the bottom of the door frame, and an exit door hinged to the door frame and normally closing the exit opening at the end of the car.

4. The combination with a street car of a center post arranged between the corner posts of the car body, a movable post arranged on the car platform adjacent the step, a door frame hinged to the movable post, the free edge of which frame closes against the center post, and an exit door hinged to the door frame and normally closing the exit opening between the center post and one of the corner posts of the car body.

5. The combination with a street car of a center post arranged between the corner posts of the car body, a movable post arranged on the car platform adjacent the step, a door frame hinged to the movable post, the free edge of which frame closes against the center post, a roller arranged on the bottom of the door frame, and an exit door hinged to the door frame and normally closing the exit opening between the center post and one of the corner posts of the car body.

6. The combination with a street car of a movable post arranged on the car platform adjacent the step, means whereby said post is held in a fixed position, a door frame hinged to the movable post, and an exit door hinged to the frame and normally closing the exit opening, in the end of the car.

7. The combination with a street car of a movable post arranged on the car plat-

form adjacent the step, means whereby said
post is held in a fixed position, a door
frame hinged to the movable post, a roller
arranged on the bottom of the door frame,
5 and an exit door hinged to the frame and
normally closing the exit opening in the
end of the car. .

In testimony whereof, I have signed my
name to this specification, in presence of two
subscribing witnesses.

CHARLES O. BIRNEY.

Witnesses:

M. P. SMITH,
E. L. WALLACE.