

No. 785,456.

PATENTED MAR. 21, 1905.

C. M. WAITE.

RAILWAY CAR GATE.

APPLICATION FILED MAR. 6, 1903. RENEWED SEPT. 7, 1904.

2 SHEETS—SHEET 1.

Charles M. Waite.
for Harold Serrell

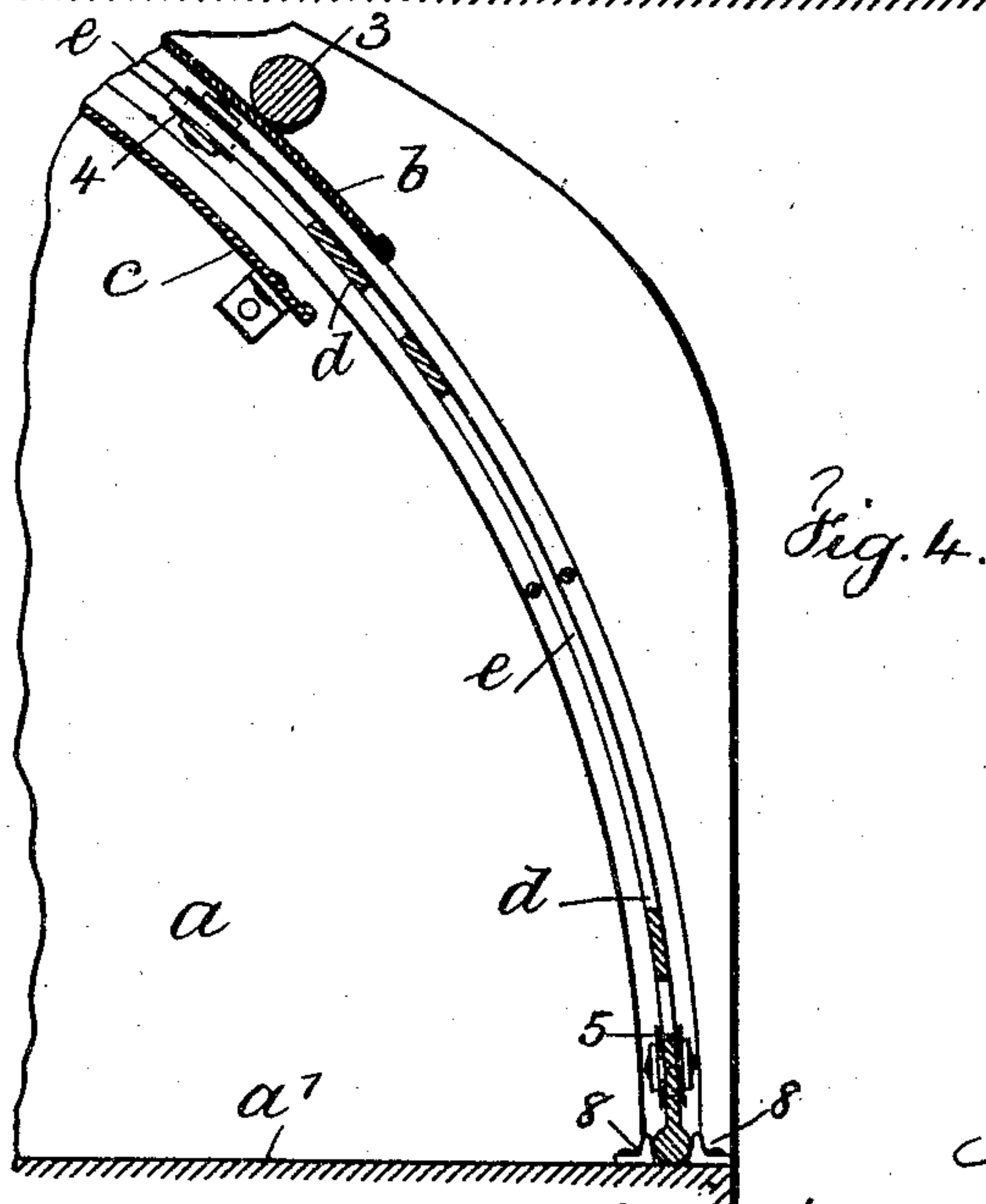
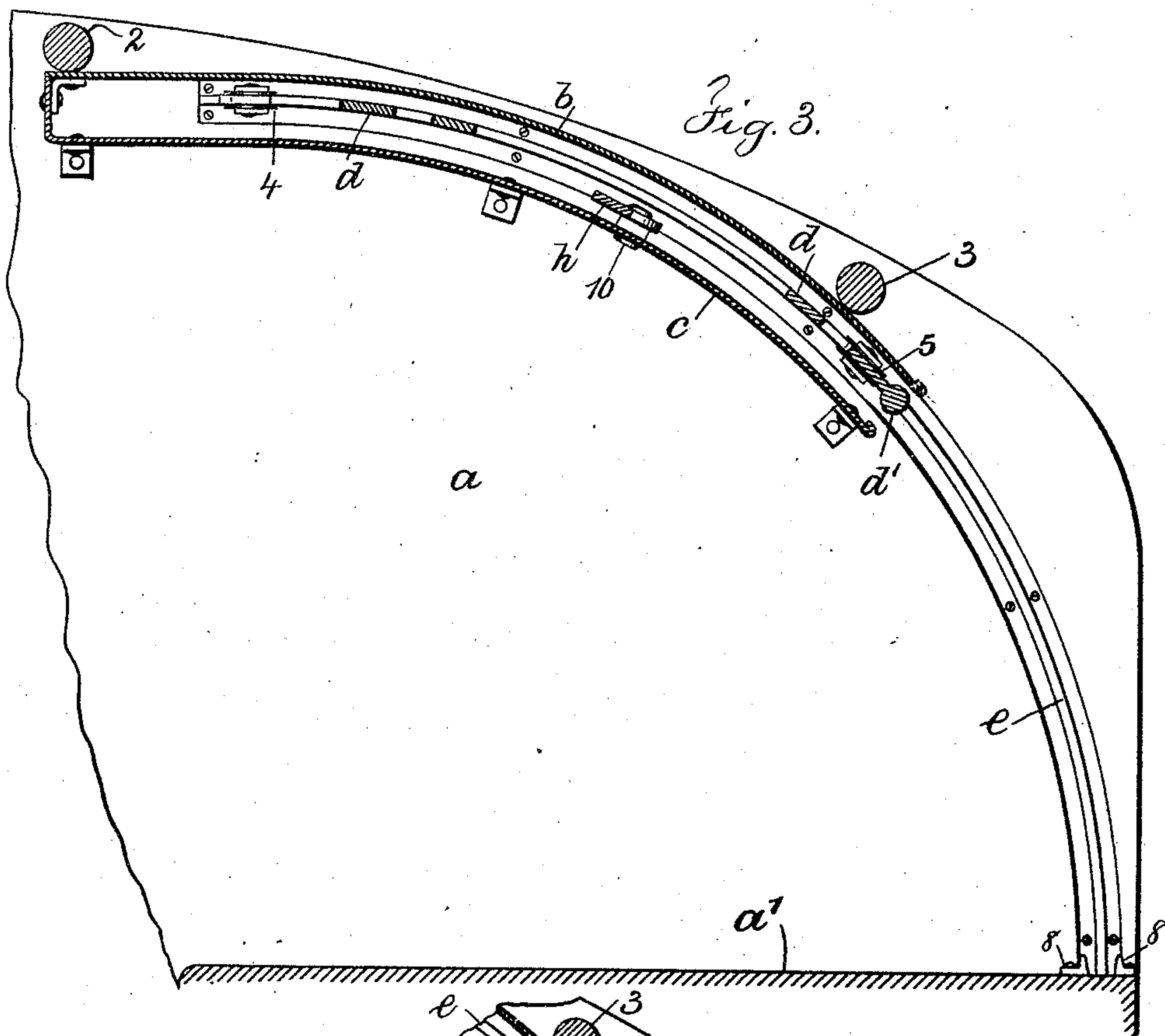
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Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES M. WAITE, OF NEW YORK, N. Y.

RAILWAY-CAR GATE.

SPECIFICATION forming part of Letters Patent No. 785,456, dated March 21, 1905.

Application filed March 6, 1903. Renewed September 7, 1904. Serial No. 223,655.

To all whom it may concern:

Be it known that I, CHARLES M. WAITE, a citizen of the United States, residing in the borough of Bronx, city and State of New York, have invented an Improvement in Railway-Car Gates, of which the following is a specification.

Difficulties have heretofore been experienced, especially on elevated-railway cars, in closing the usual swinging gates, because frequently the platforms of the cars are blocked by passengers who crowd the platforms, as well as the interior of the cars, especially early and late in the day.

The object of my invention is to provide a gate readily and easily operated and which shall so conform to the configuration of the dash or platform-front as to lie close thereto when retracted and which by virtue of its position and configuration may be moved as a substantial prolongation of said dash across the gap between the said dash and the end of the car-body to close the said gap without interfering with the crowd of passengers upon the platform and which may be as readily retracted or returned to original position.

In carrying out my invention I make the dash or platform-front at each side of the center with a double casing or shell, and I construct a curved gate of bars of suitable form adapted to fit between these casings when retracted and not in use, the said gate conforming to the configuration of said parts. This gate is provided with supporting-rollers to run on a curved floor-track, and the advancing end of the gate has an upright rod and roller guided by a track overhead, which rod, when the gate closes the gap, is received between angle-plates forming a recess on the end of the car. A rocker-arm and a locking-latch device connected thereto and a lever are pivoted to the dash-casing. This lever has a bifurcated upper end engaging a stud of the gate, and a link connects the lever and rocker-arm, so as to operate the gate and cause the projection and retraction of the same, and the latch device holds the parts in either position or only when projected, all of which is hereinafter more particularly set forth.

In the drawings, Figure 1 is an elevation

looking from the car-body toward the dash with the back plate or shell of the dash removed and the gate retracted as between said parts. Fig. 2 is a vertical section at the line $x x$ of Fig. 1 looking toward the left hand. Fig. 3 is a sectional plan on the line $y y$ of Fig. 1 with the parts in the position shown in Fig. 1; and Fig. 4 is a sectional plan similar to Fig. 3, showing the gate projected and in position as closing the gap between the end of the dash and the end of the car.

a represents part of a car-platform, and a' part of the end of the car-body. The dash of the car according to my improvement comprises a front plate or shell b and a back plate or shell c , preferably connected together and to the platform a and to the post-supports 2 3.

d represents the curved gate of connected bars or plates, a configuration for which is shown in Fig. 1, although I do not limit myself in any respect to this configuration. This gate is preferably provided with support rollers or wheels 4 5, connected to the under side and adapted to run upon the floor-track e of curved form and which is laid between the front and back plates $b c$ and extends across the gap between the dash and the end of the car.

I provide a track f between the front and back plates of the dash, suitably supported, and an overhead track f' , which overhead track extends, preferably, from the upper end of the post 3 to the end of the car-body and may, if desired, be inclosed by a casing. I provide on the upper and rear end of the curved gate d a guide-roller 6, running on the track f , and the advancing edge of the gate is provided with a post d' , which extends above the gate and terminates with a guide-roller 7, running upon the overhead track f' . Vertically-placed angle-plates 8 8 are secured to the end of the car in line with the end of the track e , there being formed a recess between said angle-plates to receive the post d' of the gate when the gate is projected so as to close the gap between the dash and the car. This position is shown in Fig. 4.

I provide a rocker-arm g , pivoted at 9 to the back plate c of the dash, and a lever h , pivoted at 10 also to the back plate c of the dash. The upper end of this lever h is bifur-

cated to receive a pin 11, secured to the gate *d*. A link *i* connects the lower end of the rocker-arm *g* with the lever *h* about midway of the lever. (See Fig. 1.) The upper end of the rocker-arm *g* terminates in a handle of approved form, and by the swinging movement of this rocker-arm in opposite directions the link *i* and the lever *h* are actuated, so as to project the gate from between the front and back plates *b c* of the dash across the gap between the dash and the end of the car or to withdraw or retract the same back between said plates, the said pin 11 in this movement passing along the slot of the bifurcated end of the lever *h* and the gate being moved primarily through the intervention of this pin 11.

It is advantageous to hold the gate in its respective positions, especially when projected in closing the gap, and for this purpose any suitable device may be employed. I, however, have shown and prefer to employ a spring-latch structure 12, connected to the handle end of the rocker-arm *g*, and a notched latch-plate 13, secured between the front plate *b* and the back plate *c* of the dash. This plate in the drawings is shown as connected to the front plate *b* and extending as a strap, so as to provide a way through the same for the movement of the rocker-arm; but I do not limit myself to this particular construction.

From the illustration and the foregoing description it will be apparent that this gate may be operated as a substantial prolongation of the curved dash extending across the gap between the dash and the end of the car and without necessarily interfering with the crowd of passengers upon the platform and that the same may be also readily returned to position.

While I have illustrated in the drawings and described in the foregoing specification a gate structure of bars, it is quite evident that this movable device might be in any convenient or desirable form—that is, as a gate made of bars or as a solid door—so long as the same is received between the front and back portions of the dash and movable across the gap between the end of the dash and the end of the car as a substantial prolongation of the dash and is of curved form.

I claim as my invention—

1. The combination with the platform and the curved dash of a railway-car, of a curved gate structure substantially concentric with and lying closely adjacent to the said dash but not extending above the upper edge thereof, and devices secured to and supported by the dash for moving said gate as a substantial prolongation of the said dash to close the gap between the same and the end of the car.

2. The combination with the platform and curved dash of a railway-car, of a gate of curved form substantially coinciding with the curved dash, a curved track for said gate extending across the gap between the dash and the car-body and a manually-operated lever

device connected to the dash structure and adapted for moving the gate in opposite directions.

3. The combination with the platform of a railway-car, of a hollow curved dash secured thereto, a gate of curved form substantially coinciding with the curved dash and adapted to be received between the parts thereof, a curved track for said gate extending across the gap between the dash and the car-body and within the hollow dash and a manually-operated lever device connected to the dash structure and adapted for moving the gate in opposite directions.

4. The combination with the platform and curved dash of a railway-car, of a gate of curved form substantially coinciding with the curved dash, a curved track for said gate extending across the gap between the dash and the car-body, a manually-operated lever device connected to the dash structure and adapted for moving the gate in opposite directions, guide-rollers at the bottom edge of the gate, and guide-rollers also above the gate for directing the path thereof and facilitating the movement, a post at the advancing edge of the gate continuing above the gate, a guide-roller at its upper end, a track overhead and devices forming a recess to receive the post at the end of the car.

5. The combination with the platform of a railway-car, of a hollow dash comprising adjacent concentric and curved front and back parts, a sliding gate of curved form adapted to be received between said front and back parts, devices for supporting and guiding said gate and other devices connected with the hollow dash for moving said gate to close the gap between the dash and the car-body or to retract the same between the plates of the dash.

6. The combination with the platform of a railway-car, of a dash comprising adjacent concentric and curved front and back plates, a gate of curved form adapted to be received between said front and back plates, a floor-track of curved form secured to the platform, located between the front and back plates and extending across the gap between the dash and the car-body on a prolongation of the same curve, supporting-rollers for the gate resting on said track, a track between the said dash-plates and above the gate, and a guide-roller connected to the gate and running on said track, a post at the edge of the gate adjacent to the edge of the dash at the gap and extending above the gate, a guide-roller and track overhead, and manually-operated devices for imparting backward and forward movements to said gate to project the same across the gap between the dash and the car-body and to retract the same.

7. The combination with the platform of a railway-car, of a dash comprising adjacent concentric and curved front and back plates, a gate of curved form adapted to be received

between said front and back plates, a floor-track of curved form secured to the platform located between the front and back plates and extending across the gap between the dash
5 and the car-body on a prolongation of the same curve, supporting-rollers for the gate resting on said track, a track between the said dash-plates and above the gate, and a guide-roller connected to the gate and running on said track, a post at the edge of the
10 gate adjacent to the edge of the dash at the gap and extending above the gate, a guide-roller and track overhead, a rocker-arm pivoted to the back plate of the dash and terminating in a handle above the same, a lever also
15 pivoted to the back plate slightly above the platform and having a bifurcated upper free end, a pin secured to the gate and located in the bifurcated end of the lever, a link connecting
20 the lower end of the rocker-arm to the lever about midway and by which parts the gate is moved out of the dash and across the gap be-

tween the dash and the car-body, and is also retracted when desired, and a locking device for holding the gate and said parts in either
25 or both of the positions of the gate.

8. The combination with the platform of a railway-car, of a hollow curved dash, a gate of curved form substantially concentric with the dash and adapted to be received between
30 the parts thereof, a curved track for said gate extending across the gap between the dash and the car-body and upon the platform within the hollow dash, a manually-operated lever device connected to the dash structure, guide-
35 rollers at the bottom edge of the gate and guide-rollers also above the gate for directing the path thereof and facilitating the movement.

Signed by me this 4th day of March, 1903. 40
CHARLES M. WAITE.

Witnesses:

GEO. T. PINCKNEY,
A. T. BERRELL.