No. 817,103. PATENTED APR. 3, 1906.

S. CONSTABLE.

RAILROAD CAR ATTACHMENT.

APPLICATION FILED APR. 29, 1905.

Fig. 1.

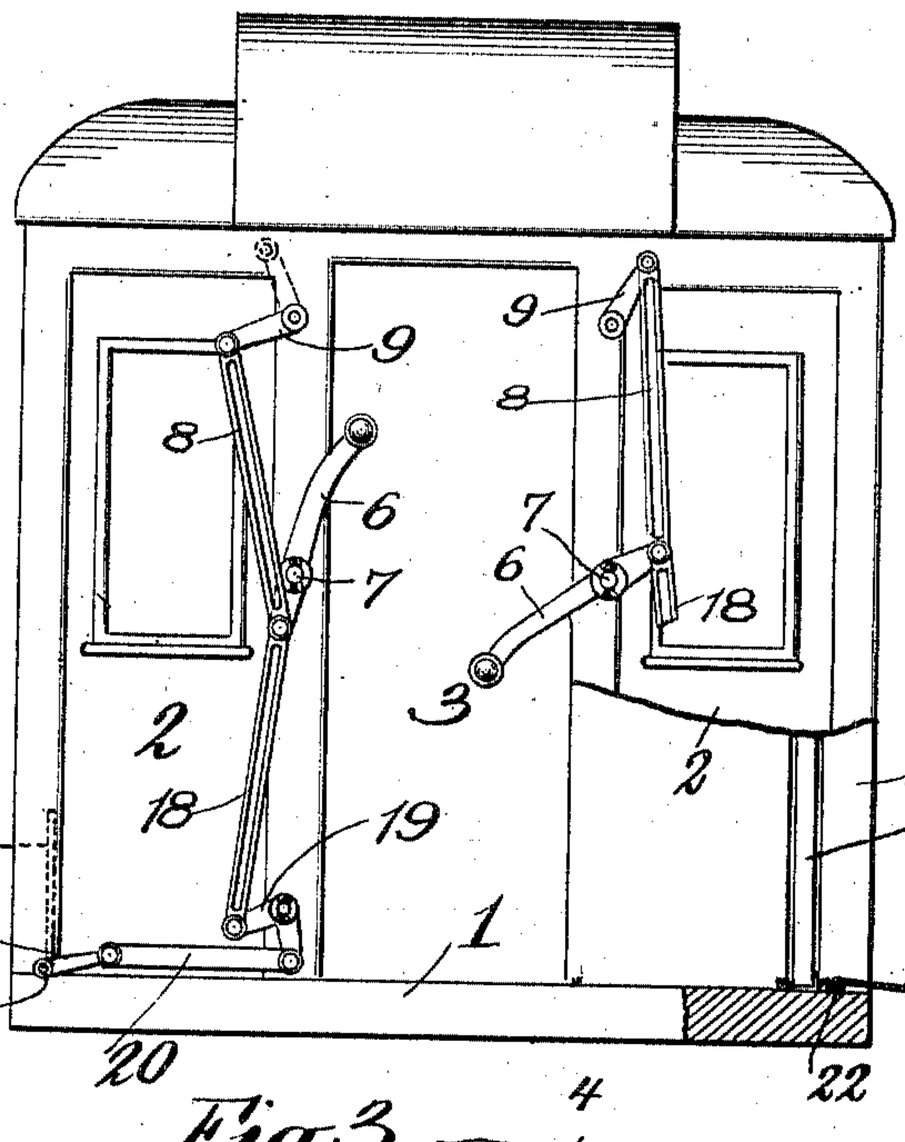
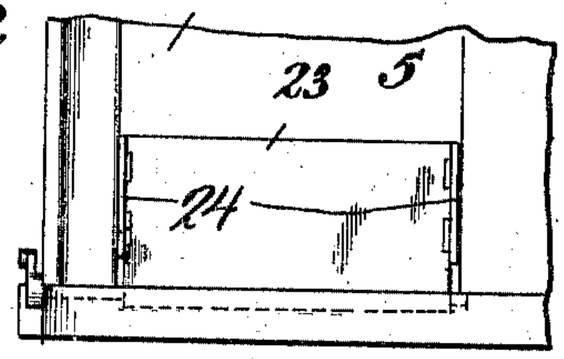


Fig. 2.

Fig. 3.



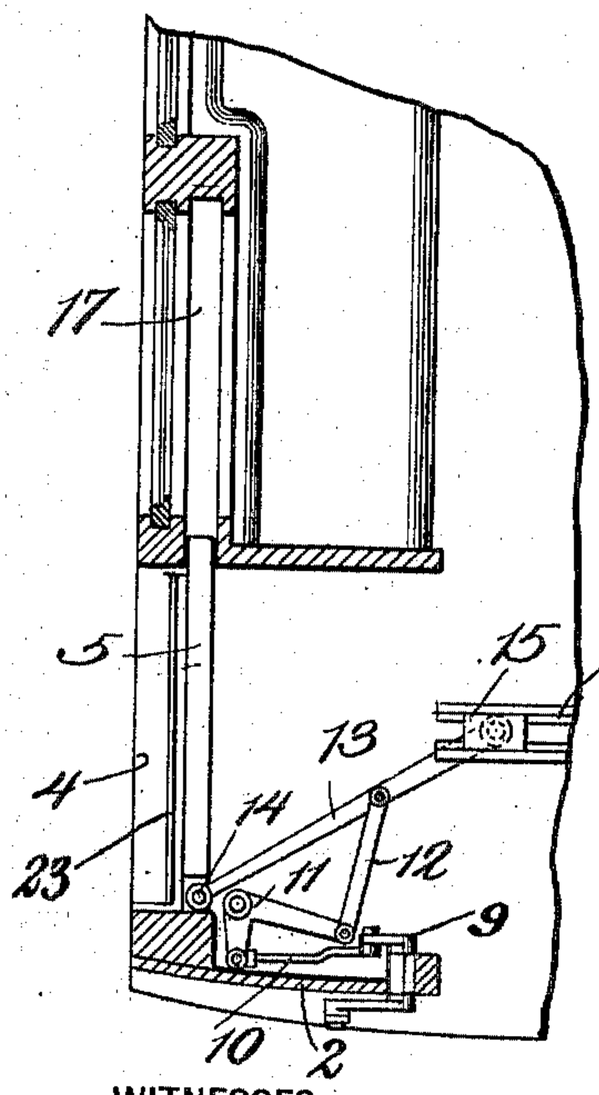


Fig. 4.

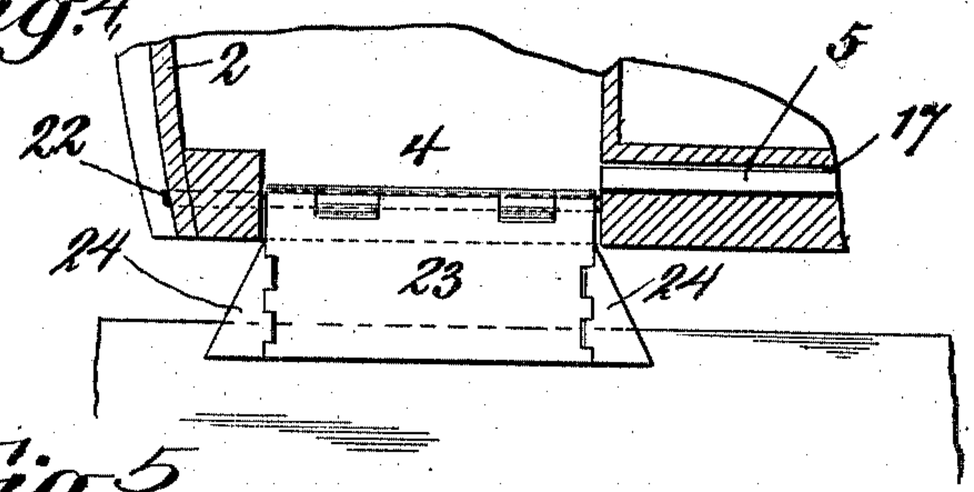
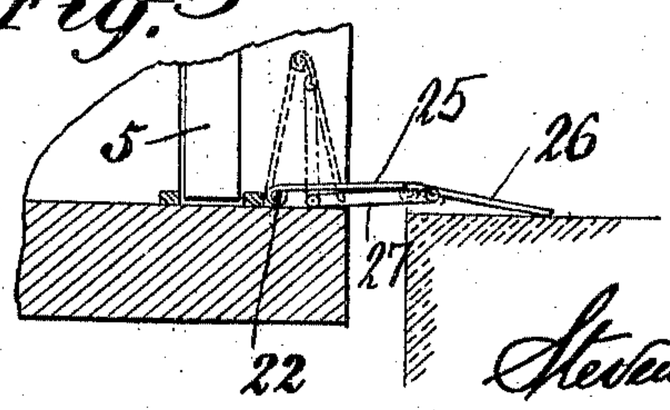


Fig. 5.



WITNESSES:

H. Lawrence

Albert W. Gibbs.

INVENTOR

Stevenson Constable

BY

Chapin Raymond Marble

ATTORNEYS

UNITED STATES PATENT OFFICE.

STEVENSON CONSTABLE, OF NEW YORK, N. Y.

RAILROAD-CAR ATTACHMENT.

No. 817,103. Specification of Letters Patent. Patented April 3, 1906.

Application filed April 29, 1905. Serial No. 258,019.

To all whom it may concern:

Be it known that I, STEVENSON CONSTABLE, a citizen of the United States of America, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Railroad-Car Attachments, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to railroad-car attachments, and comprises a means for extending the platform of railroad-cars so as to bridge the space existing between the railroad-car platforms and the platforms of stations. Such space necessarily exists, and where the station-platform is built on a curve such space is sometimes quite considerable and numerous accidents have occurred from passengers slipping into this space. To bridge this space, extensions have been made to the station-platform, such extensions being moved backward and forward by an operator at the station after a train has come to a standstill. Such a device, however, necessitates, first, a costly construction of the station-platform; second, the employment of a man to operate same, and, third, it requires that a train be always brought to a standstill at about the same point, so that the extension portion of the station-platform may substantially register with the platforms of the railroad-cars. This latter causes delays and additional wear and tear on the running-stock, because the engineer in charge of the train is compelled to commence to slow his train earlier in order to hold it well in hand, so as to stop at just the desired point, and then frequently has to finally bring the train to a standstill with brakes applied at a greater pressure than he would if he were allowed greater leeway as to the exact stopping-place.

With the foregoing in view I have designed an extensible platform for the car itself operated at the same time and through the same mechanism as the platform-door is operated, so that the conductor in opening the doors or gates of the car-platforms will simultaneously extend the platform to bridge the space above referred to.

In the present example of my invention I provide a simple form of hinged plate designed to swing to a vertical position when the door or gate of the platform is closed, so that it shall not at such times project beyond the face of the car and to swing down to a horizontal position, so that its free end will rest upon the station-platform when the door or gate of the car-platform is opened.

My invention further consists in certain novel details of construction and combination of parts, as will be hereinafter fully set forth.

I will now proceed to describe an embodiment of my invention having reference to the accompanying drawings and will then point out the novel features in claims.

In the drawings, Figure 1 is an end view of a car with a portion of the platform on one side shown in section, the car being equipped with extension devices for its platform embodying my invention. Fig. 2 is a view in horizontal section of a portion at one end of the car, showing particularly the system of levers employed for operating the door and in connection with which system of levers my extension device is operated. Fig. 3 is a face view of a portion of the car, showing the extension device in its vertical position and in which position it is maintained when out of operation. Fig. 4 is a view in horizontal section showing the extension device in its operative position. Fig. 5 is a detail view showing a modification in which the extension-plate is formed of two members.

The car shown herein is provided with the ordinary platform 1, provided with an inclosing portion 2, having an end doorway 3 and lateral doorways 4. The lateral doorways 4 are for permitting ingress and egress of passengers to and from the station-platform, while the end doorway 3 is to permit passage from one car to another. The doorways 4 are provided with sliding doors 5, operated by hand-levers 6 from the car-platform. Each hand-lever 6 is pivoted at 7 and connected by a link 8 with a bell-crank lever 9. The bell-crank lever 9 connects by means of a link 10 with another bell-crank lever 11 horizontally disposed under the hood of the car. This bell-crank lever is connected by means of a link 12 with an operating-lever 13, pivoted at one end to the door, as at 14, and at the other end to a slide 15, mounted in a transverse guideway 16. When the hand-lever 6 is pulled down, the bell-crank lever 9 is rocked upon its support, causing the bell-crank lever 11 also to rock and impart thereby the proper movement to the lever 13 to cause the door to slide into the

housing 17, so as to open the doorway 4. A return movement of the hand-lever pulls the door in the opposite direction to close it. Connected to the hand-lever 6 is another link 18, the lower end of which is pivoted to one arm of a bell-crank lever 19, in turn connected through a link 20 with an operating-arm 21. The operating-arm 21 is mounted upon a pintle 22, which supports a swinging plate 23. This swinging plate is pivoted to the car-platform and when in its horizontal position forms an extension therefor. When in a vertical position, the plate is swung up between the framing of the doorway, so that no portion thereof will project. When the hand-lever is in its uppermost position and the door therefore closed, the plate 22 is in its vertical position and against the door, while when the hand-lever is in its downmost position and the door retracted into its housing 17 the extension-plate 23 is in its operative horizontal position, as shown at the right-hand side of Fig. 1.

I may provide the extension-plate 23 with side wings 24, if desired, as shown more fully in Fig. 4, which side wings may be connected with the main portion by spring-hinges, so that they will have a tendency to open to the position shown in Fig. 4, but will be drawn into a position substantially at right angles with the plate, as shown in Fig. 3, by engagement with the door-framing when the plate 23 is swung into its vertical position.

In Fig. 5 I have shown a construction wherein the extension-plate is formed of two members 25 and 26, hinged together and arranged to be folded together when the extension-plate is out of operation. Suitable mechanism, such as a link 27, pivoted to the car-platform and to the member 26, may be provided for compelling the proper movement of the member 26 to extend same when the supporting member 25 is swung from a vertical to a horizontal position.

What I claim is—

1. The combination with a railroad-car, a sliding door or gate therefor, a hand-lever, and means for operating said door from said hand-lever, of an extension member movably positioned in proximity to the doorway, and means connecting said extension member to said hand-lever, whereby said member will be moved to a position projecting beyond the body-line of the car when the door is slid open, and substantially horizontal with respect thereto, and whereby said member will be retracted to a position substantially within the body-line of the car, when the said door is closed.

2. The combination with a railroad-car, a sliding door or gate therefor, a hand-lever, and means for operating said door from said hand-lever, of an extension-plate pivoted to the car in proximity to the doorway, and means connecting said pivoted extension-plate to said hand-lever whereby said plate will be swung down to a substantially horizontal position, and extending beyond the body-line of the car, when the door is slid open, and whereby said plate will be swung up to a substantially vertical position, against the door, when said door is closed.

3. The combination with a railroad-car, and a pivoted extension-plate therefor, and means for operating same, of a portion pivoted to said extension-plate, and adapted to further extend said plate when same is in operative position.

4. The combination with a railroad-car, a pivoted extension-plate therefor, and means for operating same, of side wings pivoted to said extension-plate, adapted to further extend same.

STEVENSON CONSTABLE.

Witnesses:
C. F. CARRINGTON,
L. S. ANDREWS, Jr.