No. 808,329. PATENTED DEC. 26, 1905.

H. WITTE.

FOLDING DOOR FOR CAR PLATFORMS.

APPLICATION FILED OCT. 19, 1905.

Fig. I.

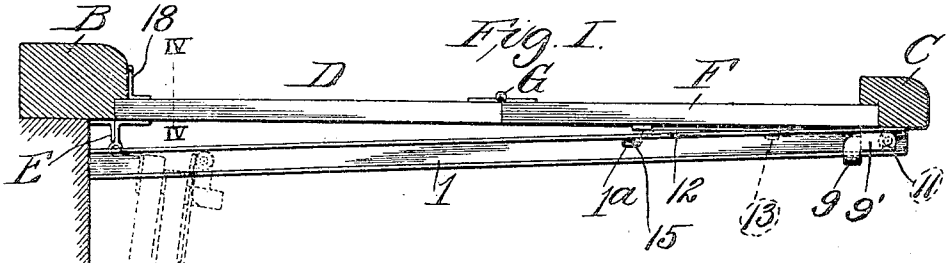


Fig. II.

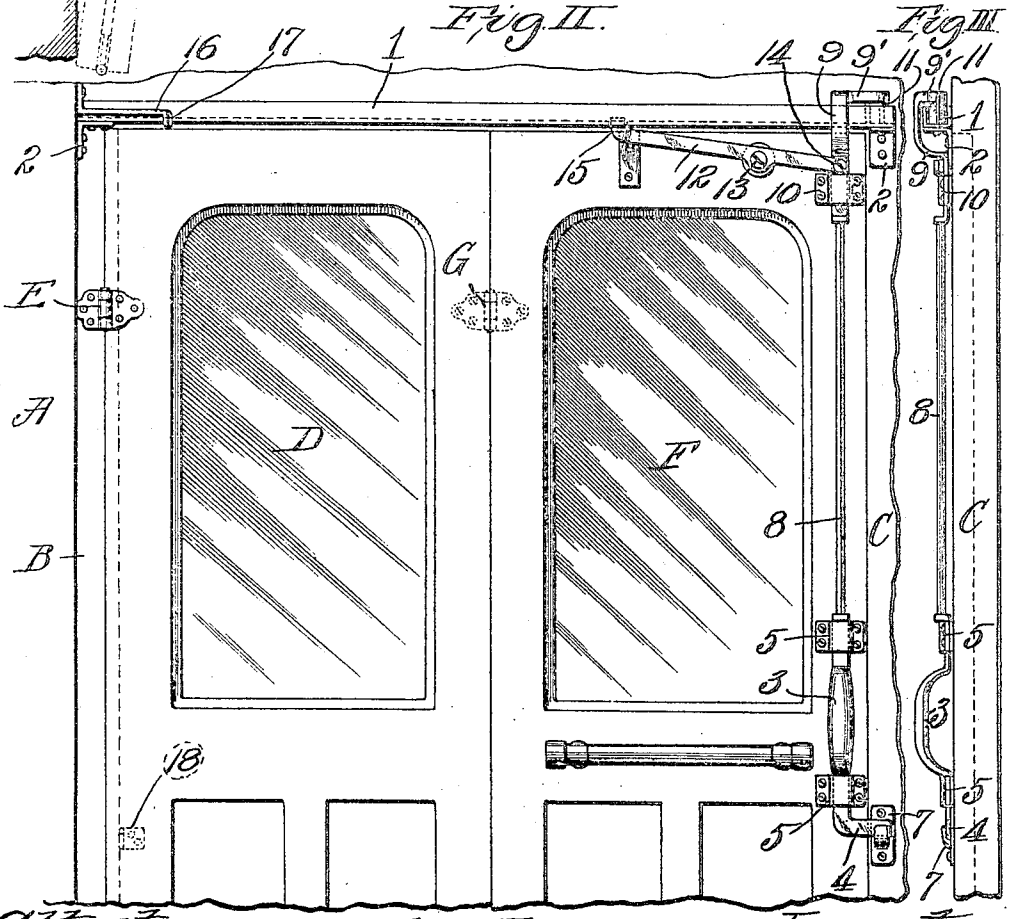


Fig. III.

Fig. IV.



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FOLDING DOOR FOR CAR-PLATFORMS.

No. 808,329. Specification of Letters Patent. Patented Dec. 26, 1905.

Application filed October 19, 1905. Serial No. 283,398.

To all whom it may concern:

Be it known that I, HUBERT WITTE, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Folding Doors for Car-Platforms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a sectional or folding door for use upon the platforms of cars, and more particularly upon the platforms of street-railway cars; and the invention has for its object to provide a simple and efficient means whereby the sections of the door may be efficiently held from movement both when the door is in closed position and in open position.

Figure I is a top or plan view of my door. Fig. II is an elevation of the door looking at the inside face thereof. Fig. III is an end elevation. Fig. IV is a vertical section taken on line IV IV, Fig. I, and illustrates in detail one of the catches serving to hold the door when in its folded or open condition.

A designates a portion of the end wall of a car, B one of the corner-posts, and C one of the platform corner-posts.

D designates the rear section of my door, which is swingingly connected to the corner-post B by hinges E, that permit of said section being swung inwardly toward the car end wall A or outwardly into a position at right angle to said car end wall.

F is the forward section of the door, which is connected to the rear section D by hinges G, that permit of the section F being moved into line with the section D when the door is unfolded and also permit of the section F being folded to lie against the section D when the door is folded.

1 designates a channel-shaped track. This channel track is supported above the tops of the door-sections D and F, preferably by brackets 2, secured to the car end wall A and the platform corner-post C, whereby the track extends the full width of the space between said car end wall corner-post. The rear end of the track or that end in proximity to which the hinges of the rear door-section D are located is preferably located remote from said door-section for a reason that will be obvious in view of the utility of the channel track, as will hereinafter appear. In the bottom of the channel track at a desirable position is an opening 1^a, that receives a member to be hereinafter mentioned.

3 designates a slidable handle mounted in keepers, 5 carried by the forward door-section F and having an outturned finger 4. This outturned finger is arranged to project beyond the outer edge of the door-section F and is designed for engagement with the tongue of a catch-plate 7, that is secured to the platform corner-post C for the purpose of holding said door-section from movement when the door is in closed position.

8 designates a connecting-rod united to the slide-handle 3 and adapted to be reciprocated with said handle.

9 designates a guide member having its lower end slidably fitted in a keeper 10, secured to the door-section F and to which the connecting-rod 8 is united. This guide member is curved outwardly from the door-section F above the keeper 10, and it has an inwardly-extending horizontal arm 9′, that projects over the channel track 1.

11 is a roller fitted to the horizontal portion of the guide member and arranged to travel in the channel track 1 when the door is swinging.

12 designates a latch-bar pivotally connected intermediate of its ends at 13 to the forward door-section F. This latch-bar is pivoted to the guide member 9 at one of its ends at 14. The other end of the latch-bar is provided with an upturned finger 15, which is adapted to enter the opening 1^a in the channel track 1 when the door is in closed position, whereby said latch-bar is caused to hold the door at its upper end in addition to the securing means provided by the finger 4 of the slide-handle 3 and the catch member with which it engages.

When the door is to be moved from the closed or unfolded position, in which it is illustrated in full lines in the drawings, into an open or folded position, the operator grasps the slide-handle 3 and moves it in an upward direction to withdraw its finger 4 from the tongue of the catch-plate 7. In moving the slide-handle upwardly the connecting-rod 8 and the guide member 9 are elevated, and as a result the end of the latch-bar 12, connected to said guide member, is raised. As a consequence the other end of said latch-bar is

thrown downwardly, thereby retracting the finger 15 of the latch-bar from the opening in the channel track 1 to complete the unfastening of the door. The forward door-section F is then folded so that its outer side will approach the outer side of the rear door-section D, during which action the roller of the guide member 9 travels in the channel track 1 from the outer end of said track toward the rear end of the track until the door-sections are completely folded and in the position illustrated in dotted lines, Fig. I.

16 designates a catch-arm secured to the car end wall A and projecting therefrom, so as to surmount the door-sections when they are in folded condition. This catch-arm is provided at its outer free end with a downturned lip 17, (see Fig. II,) against which the finger 15 of the latch-bar 12 is adapted to engage to hold the doors in open or folded condition when the latch mechanism is at rest after the door has been folded.

18 is a notched catch-arm (see Figs. I and IV) that is secured to the outer face of the rear door-section D and to which the forward edge of the forward door-section F is adapted to be moved when the door is folded. I will here note that the forward door-section F is of less width than the rear door-section D, and consequently the catch-arm 18 may be so disposed on the outer side of the rear door-section as to permit of said catch-arm extending across the forward edge of the forward door-section, as seen in dotted lines, Fig. I. When the door-sections are folded, the catch-arm 18 therefore projects into a position that permits of the slide-handle finger 4 being moved into engagement with said catch-arm to hold the door-sections folded in addition to the holding action furnished by the engagement of the latch-bar 12 with the catch-arm 16.

I claim as my invention—

1. In a folding door, the combination with a pair of sections foldingly united to each other, a track adjacent to said door-sections, a guide member carried by one of said door-sections travelingly fitted in said track, and a latch-bar fitted to said guide member and arranged for engagement with said track, substantially as set forth.

2. In a folding door, the combination with a pair of sections foldingly united to each other, a track adjacent to said door-sections, a guide member carried by one of the door-sections and travelingly fitted to said track, and a movable latch-handle connected to said guide member, substantially as set forth.

3. In a folding door, the combination with a pair of sections foldingly united to each other, a track adjacent to said door-sections, a guide member carried by one of the door-sections and travelingly fitted to said track, a movable latch-handle connected to said guide member, and a latch-bar connected to said guide member and arranged for engagement with said track, substantially as set forth.

4. In a folding door, the combination with a pair of sections foldingly united, of a track adjacent to said door-sections, a guide member slidably fitted to one of said door-sections and travelingly fitted to said track, a latch-bar connected to said guide member and arranged for engagement with said track, and a slide-handle connected to said guide member, substantially as set forth.

5. In a folding door, the combination with a pair of sections foldingly united, of a track adjacent to said door-sections, a guide member slidably fitted to one of said door-sections and travelingly fitted to said track, a latch-bar connected to said guide member and arranged for engagement with said track, a slide-handle connected to said guide member, and a catch member supported in a fixed position and arranged to be engaged by said slide-handle, substantially as set forth.

6. In a folding door, the combination with a pair of sections foldingly united, of a track adjacent to said door-sections, a guide member slidably fitted to one of said door-sections, a roller carried by said guide member and arranged to travel in said track, a latch-bar connected to said guide member and arranged for engagement with said track, and a slide-handle connected to said guide member, substantially as set forth.

HUBERT WITTE.

In presence of—
A. DIEKMANN,
HELEN J. MURPHY.