C. SCHENCK.

DOOR CHECK.

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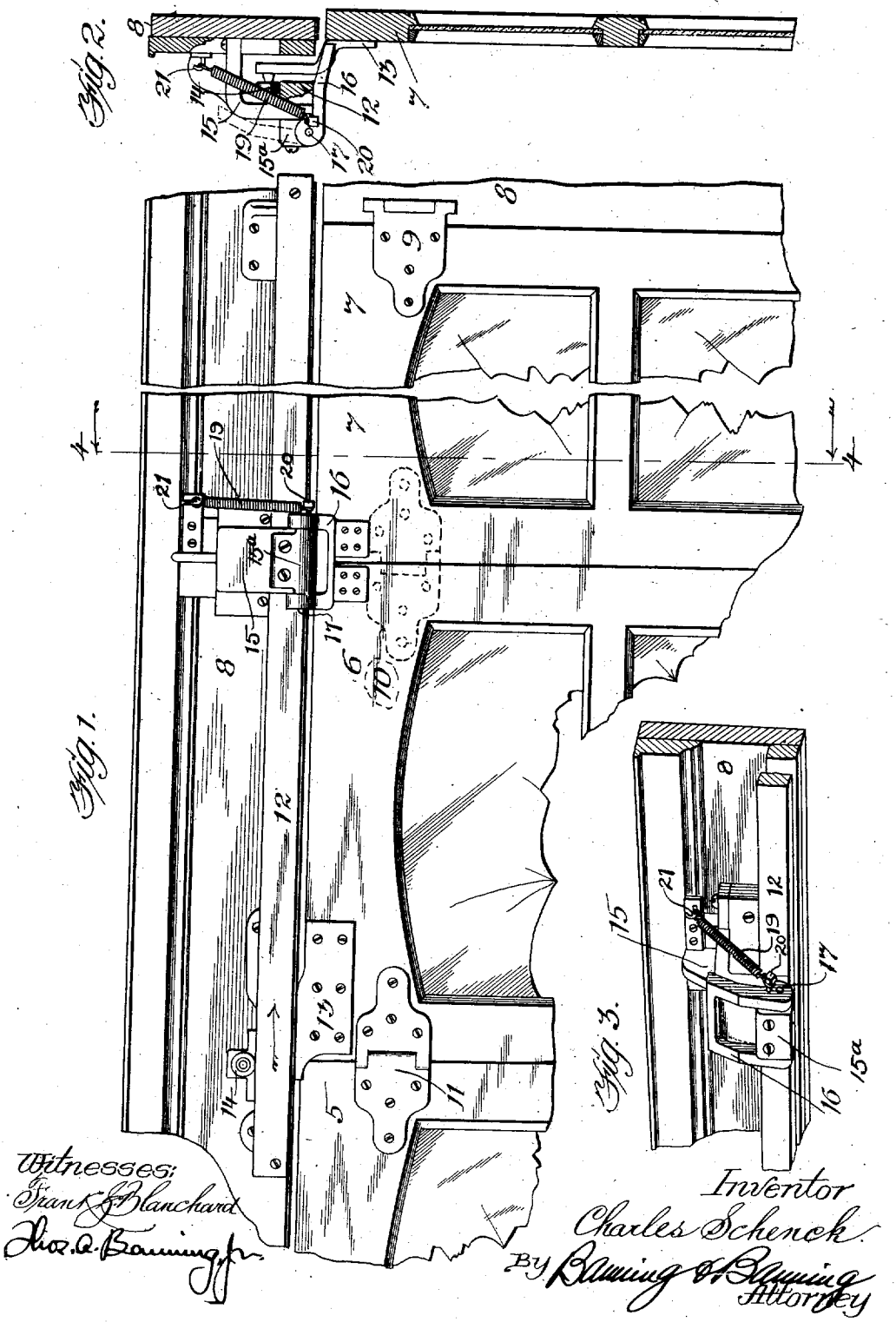

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DOOR-CHECK.

972,784. Specification of Letters Patent. Patented Oct. 11, 1910.

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To all whom it may concern:

Be it known that I, CHARLES SCHENCK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Door-Checks, of which the following is a specification.

The doors used in vestibules of street cars and in other similar locations are often made of a number of panels which fold together in such a manner that when the door is opened a large opening will be secured and the panels will fold back into a comparatively small space. At the present time certain locking devices are used for maintaining the several panels of such a door firmly in alinement when the door is extended and closed. Such devices are generally in the form of a long rod extending entirely across the several panels, and provided with proper locking facilities for engaging each panel, or such of them as will secure them firmly to the locking rod. The rod is generally pivoted near its central portion, so that it may be rotated out of locking engagement with the several panels, but difficulty is sometimes encountered in maintaining it securely in locking position.

The object of the invention is to provide a locking device for holding such panel doors, and especially those for use on car vestibules, securely in alinement when once the panels have been extended for closing the opening.

The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 illustrates a side elevation of a paneled door, employing three panels and having this improved locking mechanism attached to its upper portion; Fig. 2, a cross sectional elevation, taken on line 4—4 of Fig. 1, looking in the direction of the arrows and showing by dotted lines the position which the locking bar assumes when rotated into non-locking position; and Fig. 3, a perspective of the improved locking mechanism as attached to the car body, and showing the locking member thrown into non-locking position.

The door comprises three panels, 5, 6, and 7, attached to the car body 8. The panel 7 is hinged to the car body by means of hinges, such as 9; the panels 6 and 7 being connected by means of hinges, such as 10, located on the rear of the panels; and the panels 5 and 6 are connected by means of hinges, such as 11, located on the front of the panels. The upper end of the panel 6 is hung from a bar 12 by means of a hanger 13 provided with a carrying roller 14 which runs on the top of the bar 12.

In opening the door the portions of the panels 6 and 7 adjacent to the hinge 10 swing inwardly toward the observer, so that the panel 7 may rotate with respect to the car body 8 on the hinge 9. The panel 5 at the same time is intended to be folded over against the panel 6 by rotating on the hinge 11. It will be seen that in the folding process, as the panels 6 and 7 are pulled inwardly, the hanger 13 must move in the direction of the arrows, and that eventually the roller 14 on the top of the bar 12 will have to pass well over to the right.

In order to lock all three panels securely, it is only necessary to lock the outer or left hand edge of the panel 5 to the body of the car, and to lock the portions of the panels 6 and 7 adjacent to the hinge 10 likewise to the body of the car. This invention is adapted to be applied in such a way as to lock the last named portions of the panels 6 and 7 to the car body.

The locking mechanism consists, essentially, of a bracket 15 suitably mounted to the body of the car, spanning the bar 12 and passageway necessary for the passage of the hanger 13 and the roller 14, as shown in Fig. 2. The bracket carries, at its lower end, a block 15^a to which is pivoted a locking member 16, pivoted thereto at 17 in any suitable manner. The locking member is adapted to swing around into locking engagement with the upper portions of the panels 6 and 7, as shown in Figs. 1 and 2, so that when held in that position these panels cannot be moved inwardly toward the observer. The bar 12 acts as a stop for the locking member and determines its limit of movement for the locking position.

A spring 19 is properly connected to the locking member and to the car body, so that when the locking member has been thrown into locking position the tendency of the spring will be to maintain the locking member in locking position, and so that when the locking member is thrown into non-locking position the tendency of the spring will be to hold the locking member in such position, as shown by dotted lines in Fig. 2.

In the preferred construction, the spring is permanently attached to a pin 20 of the locking member, and is locked at its opposite end to the car body, by means of a hook 21. When the locking member is rotated into non-locking position, the spring 19 will swing outwardly away from the car body, thereby allowing free passage of the roller 14 beneath the bracket 15.

Evidently, my invention is susceptible of application to any similar doors or panels which it is desired to maintain in locking position, but the design shown is adapted primarily for use on the paneled doors of car vestibules.

My locking device is seen to comprise essentially a locking member adapted to be held in locking position; but the locking function is intended to be performed, not by the force which will be exerted on the door by reason of a tension in the spring, but rather by reason of the manner in which the locking member is pivoted.

I claim:

1. In a door check, a bracket for attachment to the car body, a locking member hinged to the bracket and adapted to be rotated into position to engage the door, and adapted to remain in locking engagement with the door, when said door exerts pressure against the locking member, and a spring attached to the locking member, and adapted to maintain the locking member in position to engage the door when the locking member is thrown into locking position, and adapted to maintain the locking member out of position for engagement with the door when it is thrown into non-locking position, substantially as described.

2. In a door check, a bracket for attachment to the car body, a downwardly extending arm on the bracket, a pin secured to the downwardly extending arm, a locking member on the pin, and adapted to rotate about the same, the locking member adapted to be rotated into position for engaging the door, the pin being located so that the locking member engages the door on dead center, and a spring attached to the locking member and adapted to maintain the same in position to engage the door when the locking member is thrown into locking position, and adapted to maintain the locking member out of position for engagement with the door when it is thrown into non-locking position, substantially as described.

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