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MEANS FOR OPERATING CAR PLATFORMS.  
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999,450.

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Fig. 1.

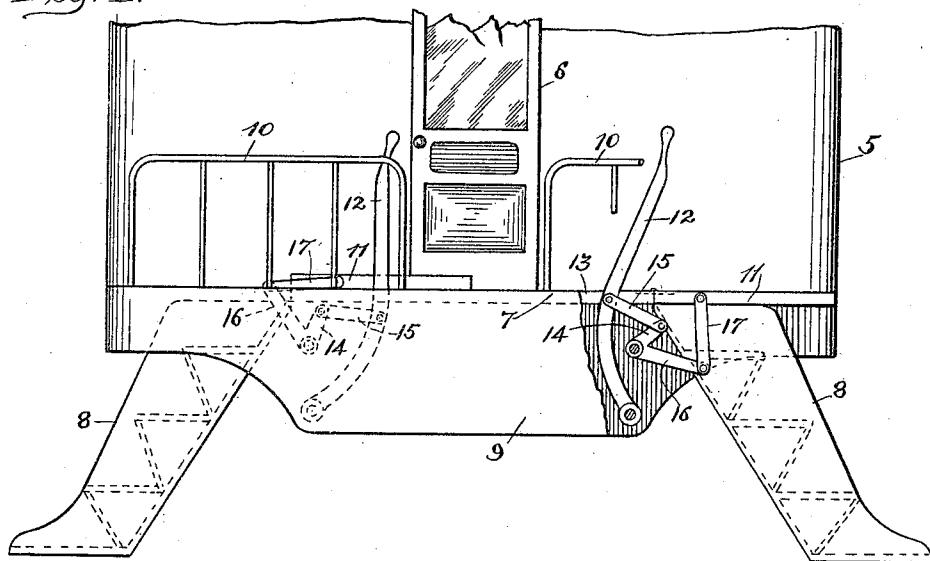
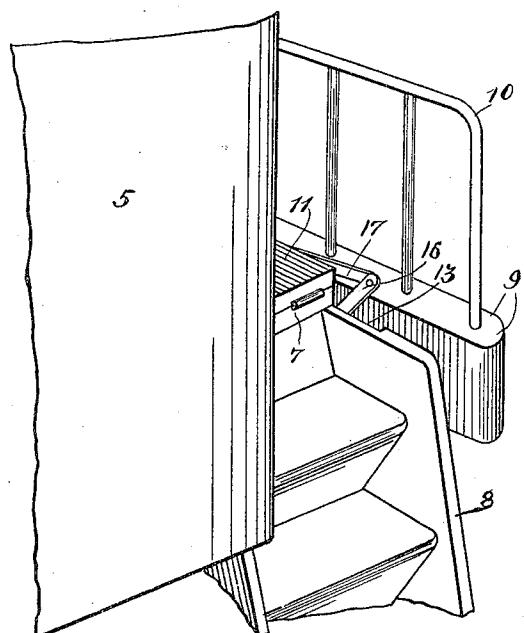


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

KARL E. O. HOCKINSON, OF CHICAGO, ILLINOIS.

## MEANS FOR OPERATING CAR-PLATFORMS.

999,450.

Specification of Letters Patent. Patented Aug. 1, 1911.

Application filed March 17, 1911. Serial No. 615,001.

*To all whom it may concern:*

Be it known that I, KARL E. O. HOCKINSON, a citizen of the United States, residing at Chicago, in the county of Cook and State 5 of Illinois, have invented certain new and useful Improvements in Means for Operating Car-Platforms, of which the following is a specification.

This invention relates to certain new and 10 useful improvements in means for operating car platforms, and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more 15 fully set forth and specifically claimed.

As is well known, many passenger coaches, as well as sleeping-cars and diners, are equipped at their ends and on each side thereof, with steps for the ingress and egress 20 of passengers, and that the cut away portions of the platforms above the steps are closed, when it is not desired to use the steps, by means of the doors hinged to one side of said cut away portions, and said 25 doors have to be lifted or turned on their hinges by the manual operation of the porter or brakeman in order to expose the steps for use. This requires stooping over and sometimes much exertion by the operator, when the doors are covered with snow 30 or ice, and besides, as the doors or hinged sections of the platforms, when raised are located on the sides of the passage-ways directly above the steps they take up considerable room or are in the way to some extent. 35

The principal object of my invention is to overcome the above named objections or difficulties, and to provide hinged sections of the platforms, which, when the steps are in 40 use, will lie entirely out of the way and in a horizontal position, yet can readily be adjusted to overlie the steps when it is not desired to use the same.

A further object of the invention is to 45 provide means for manipulating the hinged sections which shall be simple and inexpensive in construction, strong, durable and efficient in operation, and so made that the hinged sections of the platforms may be 50 thrown into their operative positions by a slight movement of an operating lever.

Various other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

55 In order to enable others skilled in the art to which the invention pertains, to make

and use the same, I will now proceed to describe it referring to the accompanying drawings in which—

Figure 1, is a view in elevation of one 60 end of a car showing it equipped with steps and my improved means for operating the hinged sections of the platform, and illustrating one of said hinged sections in the position it will occupy when overlying the 65 steps, and the other of said hinged sections in the position it will occupy when the steps are opened for use, and Fig. 2, is a perspective view of a portion of a car equipped with my improvements showing a portion 70 of one of the hinged sections in the position it will occupy when the steps are open for use.

Like numerals of reference refer to corresponding parts throughout the different 75 views of the drawing.

The reference numeral 5, designates a railway car or coach which may be of the ordinary or any preferred construction, and has as usual, at each of its ends and outwardly of the doors 6, a horizontally disposed platform 7, from the side edges of which project depending step frames 8, which frames and the steps thereon may be of the ordinary or any preferred construction. 80 The outer end of each of the platforms 7, has secured thereto a horizontally disposed beam 9, on the upper surface of which are mounted the railings 10, for the protection of the passengers. As shown, the 85 upper ends of the side pieces of the step frames 8, are located a short distance below the upper surface of the beam 9, and in a horizontal plane with the lower surface of the floor or stationary part 7, of the platform, which part is suitably supported. 90 95

Hinged to each of the side edges of the stationary part 7, of the platform, is a platform section 11, which is of sufficient size to fit snugly between the inner surface of the beam 9, and the end of the car 5, and to extend outwardly to about the ends of the beam 9, and sides of the car, when in position to close the cut away portion of the platform or passage-way to and from the steps, as will be readily understood by reference to Fig. 1, of the drawing. Fulcrumed at its lower end on the inner surface of the beam 9, and near each of the step frames 8, is an operating lever 12, which extends 100 105 upwardly alongside of the railings 10, and operates in slots or recesses 13, in the upper 110

portion of the stationary part 7, of the platform and in the upper outer sides of the step frames. Also fulcrumed to the inner surface of the beam 9, outwardly from and near each 5 of the operating levers 12, is a bell-crank-lever the shorter arm 14, of each of which is pivotally connected by means of a link 15, to one of the levers 12, and each of the longer arms 16, of said bell-crank-levers is 10 pivotally connected by means of a link 17, to one of the hinged sections 11, of the platform.

From the foregoing and by reference to the drawing, it will be readily understood, 15 that when it is desired to use the steps, both of the hinged sections 11, may be turned to the position shown on the left of Fig. 1, and in Fig. 2, in which positions it is apparent that they will lie horizontally on the stationary part 7, of the platform so that passengers may walk over the same and have free 20 access to the steps. When it is desired to cover the steps with the hinged sections 11, it is only necessary to move the operating 25 lever or levers 12, from the position shown at the left of the door in Fig. 1, to that shown at the right of the door in said figure, in which operation it is apparent that by reason of the connections 14, 15, 16 and 17, 30 which unite the hinged sections 11, to the operating levers 12, that said sections will be easily moved from one of their positions to another or so as to open and close the passage-ways or cutaway parts of the platform. When the hinged sections 11, are disposed 35 to cover said cutaway portions of the platform or the passage-way to and from the steps, it is apparent that they will be strongly supported in their horizontal positions by means of the upper ends of the step frames 8, on which they may rest.

Having thus fully described my invention what I claim as new and desire to secure by Letters-Patent is—

45 1. In a device of the character described, the combination with a car having a stationary platform at one of its ends, of a transversely and horizontally disposed support at the outer end of said platform, a platform 50 section hinged to the side edge of the stationary platform and adapted to be turned on its hinges and to lie horizontally on the upper surface of the stationary platform, an operating lever suitably fulcrumed at its

lower end below the stationary platform, a bell crank lever also fulcrumed below said platform, a link uniting the operating lever to one arm of the bell crank lever and another link pivotally connected at one of its ends to the other arm of the bell-crank-lever 60 and similarly connected at its other end to the hinged section of the platform.

2. In a device of the character described, the combination with a car having a stationary platform at one of its ends, of a transversely and horizontally disposed support at the outer end of said platform, a platform section hinged to the side edge of the stationary platform and adapted to be turned on its hinges and to lie horizontally on the upper surface of the stationary platform, a step frame supported at its upper portion on the said horizontally disposed support and on the end of the car at one side of the platform, an operating lever suitably fulcrumed at its lower end below the stationary platform, a bell crank lever also fulcrumed below said platform, a link uniting the operating lever to one arm of the bell crank lever and another link uniting the other arm 70 of the bell crank lever to the hinged section of the platform, the upper end of the step frame forming a support for the hinged section when the same is disposed to close the passage-way to the steps.

3. In a device of the character described, the combination with a car having a stationary platform at one of its ends, of a transversely and horizontally disposed support at the outer end of said platform, a platform section hinged to each of the side edges of the stationary platform and adapted to be turned on their hinges and to lie horizontally on the upper surface of the stationary platform, an operating lever fulcrumed at its 90 lower end below the stationary platform near each of its side edges, a bell crank lever also fulcrumed below said platform near each of its side edges, a link uniting one of the operating levers to one arm of one of the bell 100 crank levers and another link uniting the other arm of the bell crank lever to one of the hinged sections of the platform.

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Witnesses:

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