No. 745,916. PATENTED DEC. 1, 1903.

C. SELLERGREN.

CAR STEP.

APPLICATION FILED SEPT. 9, 1903.

NO MODEL.

Fig. 1.

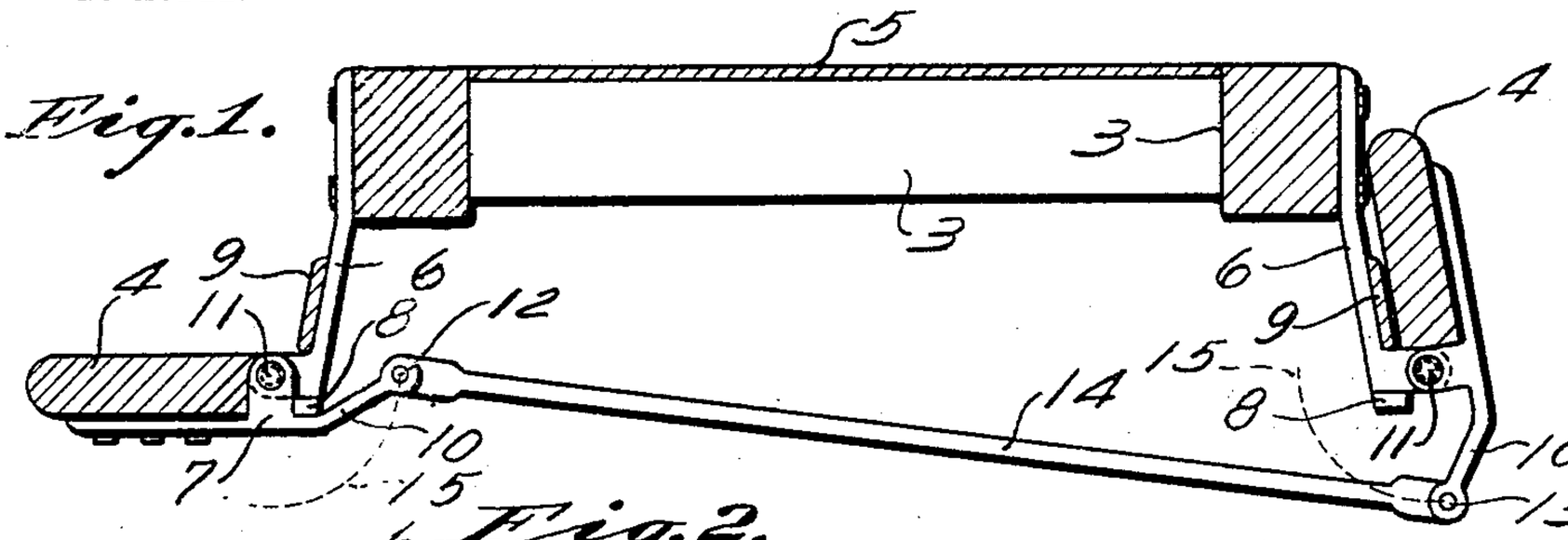
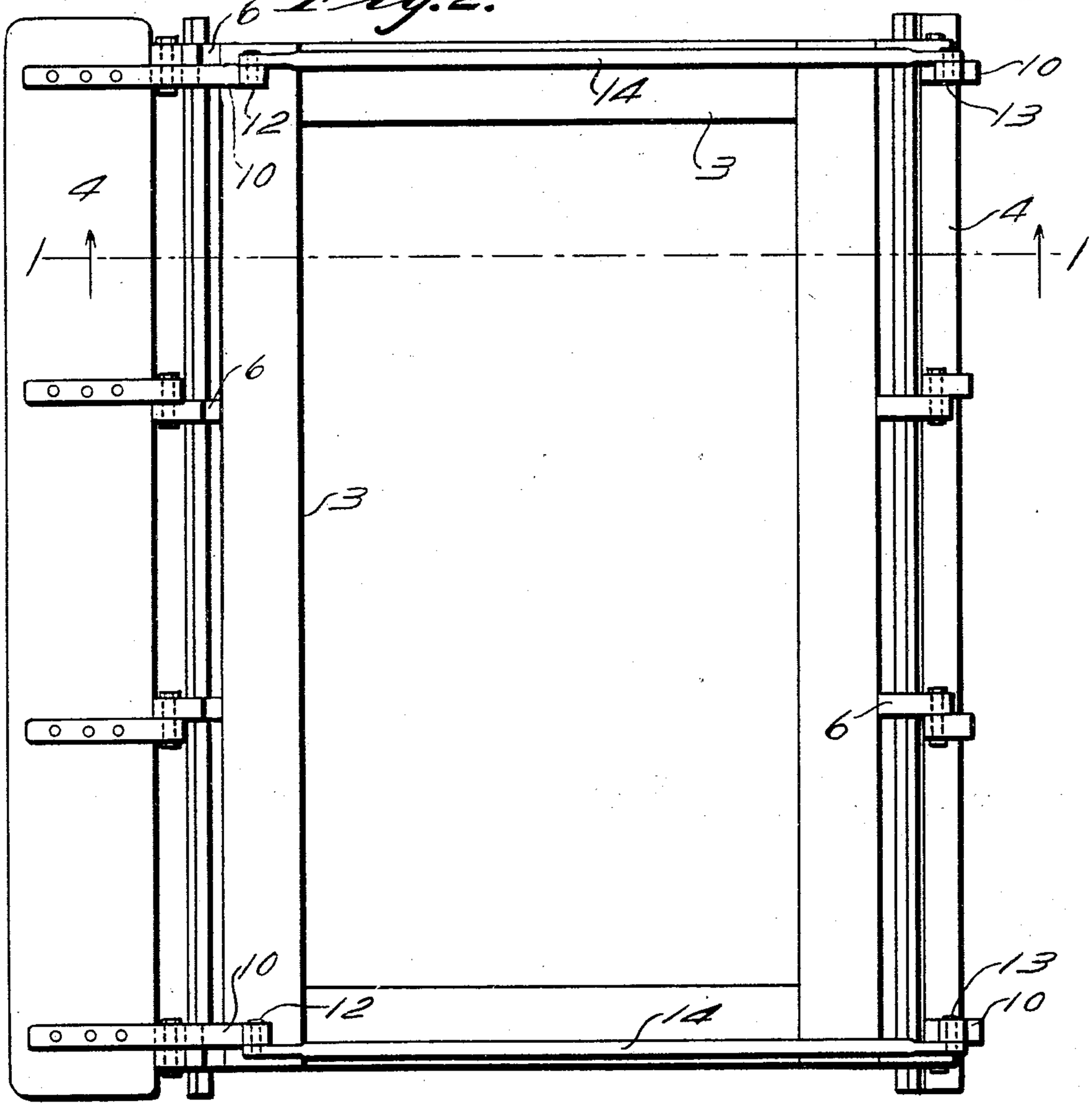


Fig. 2.



Witnesses:
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Inventor:
Carl Sellergren,
by Rummler & Rummler,
his Attorneys.

No. 745,916. Patented December 1, 1903.

UNITED STATES PATENT OFFICE.

CARL SELLERGREN, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO ALFRED BENSON, OF CHICAGO, ILLINOIS.

CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 745,916, dated December 1, 1903.

Application filed September 9, 1903. Serial No. 172,458. (No model.)

To all whom it may concern:

Be it known that I, CARL SELLERGREN, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Steps, of which the following is a specification.

My invention relates to foldable car-steps, such as are usually provided at the sides of open street-cars. It is customary in such cases to have a hinged platform extending alongside of the car. In the streets of cities where there are double tracks the step on the outside of the tracks is usually folded down for use of the passengers, while the inner step is folded into an upright position against the side of the car. It frequently happens that the inner step becomes turned down and on crowded days is occupied by passengers, sometimes resulting in serious accidents.

The main objects of my invention are to provide in devices of this class suitable means for connecting the steps at opposite sides of the car in such manner as to prevent the possibility of both of such steps being turned down at the same time and to provide such arrangement of the connecting means as to render it impossible to turn down the upright platform except through the act of turning up the opposite platform. I accomplish these objects by the device shown in the accompanying drawings, in which—

Figure 1 is a transverse section of a part of the frame of a street-car provided with steps and locking means for such steps constructed according to my invention. Fig. 2 is a bottom plan of the same.

In the construction shown the frame 3 is rectangular in form and has hinged along each side of same a platform 4, which platforms are disposed considerably below the level of the floor 5 of the car and are suspended from the frame 3 by means of a plurality of arms 6, to which are pivotally connected the hinge members 7. These are in turn secured to the platform 4. The hinges are provided with suitable stops 8, which limit the unfolding of the hinges, so as to rigidly support the platforms 4 in a substantially horizontal position. The platforms are also foldable into an upright position against the side of the car-frame, as shown at the right of Fig. 1. Suitable slats 9 are secured along the parts 6 of the hinges to close the spaces between the car-frame and the tops of the platforms 4.

Two of the hinge members 7 of each platform are provided with inwardly-extending arms 10, which are disposed transversely of the pivotal axis 11 of the hinges and are pivotally connected at 12 and 13 to the link 14. The links 14 are of sufficient length to secure one of the platforms 4 in an upright position when the opposite platform occupies a horizontal position. The arms 10 extend upward and inward, so that the pivot 12 will be above the line connecting the centers 11 and 13 when the parts are in the position shown in Fig. 1. It will be noticed that the arm 10 on the left, together with the link 14, forms a toggle-joint, which effectually prevents the upright platform at the right of Fig. 1 from being turned down. It will be seen that the same conditions arise when the platform at the right is down and the platform at the left is in its upright position.

When the platform 4 at the left of Fig. 1 is turned to its upright position, the pivot 12 will follow the dotted line 15 and pull the link 14 toward the left, thereby turning the opposite platform at the right to its horizontal position.

It will be seen that the device is self-locking and requires no attention to locks, which are easily neglected and forgotten, and that it is impossible to turn down the upturned platform except through the act of turning up the other platform.

The operation of the device shown will be understood from the foregoing description.

It will be seen that some of the details of the construction shown may be altered without departing from the spirit of my invention. I therefore do not confine myself to such details, except as hereinafter limited in the claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a device of the class described, the combination of a car-frame; a pair of horizontally-disposed platforms hinged to opposite sides of said frame, each of said plat-

forms being adapted to lie in a substantially horizontal plane and being foldable into an upright position against the side of said car-frame; suitable stops for limiting the rotation of said platforms on their hinges; and means connecting said platforms and adapted, when one of said platforms lies in a horizontal position, to secure the other platform in its upright position and to lock said upright platform against being turned down except when released through the lifting of said horizontal platform, substantially as described.

2. In a device of the class described, the combination of a car-frame; a pair of platforms hinged to opposite sides of said frame on parallel horizontal axes, each of said platforms being adapted to lie in a substantially horizontal plane or to be turned to an upright position against said frame; suitable stops for limiting the rotation of said platforms on their hinges; and a link pivotally connected to each of said platforms outside of the axis of its hinge, said link being suitably proportioned to secure one of said platforms in its upright position when the other platform lies in its horizontal position and to lock said upright platform against being turned down except when released through the lifting of said horizontal platform, substantially as described.

3. In a device of the class described, the combination of a car-frame; a pair of platforms hinged to opposite sides of said frame on parallel horizontal axes, each of said platforms being adapted to lie in a substantially horizontal plane or to be turned to an upright position against said frame; suitable stops for limiting the rotation of said platforms on their hinges; an arm secured to each of said platforms and extended transversely of the axis of said platform; and a link connecting said arms and suitably proportioned to secure one of the platforms in an upright position when the other platform lies in its horizontal position and to lock said upright platform against being turned down except when released through the lifting of said horizontal platform, substantially as described.

4. In a device of the class described, the combination of a car-frame; a pair of platforms hinged to opposite sides of said frame on parallel horizontal axes, each of said platforms being adapted to lie in a substantially horizontal plane or to be turned to an upright position against said frame; suitable stops for limiting the rotation of said platforms on their hinges; an arm secured to each of said platforms and extended transversely of the axis of said platform; and a link connecting said arms and suitably proportioned to secure one of the platforms in an upright position when the other platform lies in its horizontal position, said arms being suitably disposed to prevent the upright platform from being turned down except through the action of turning up the other platform and to lock said upright platform against being turned down except when released through the lifting of said horizontal platform, substantially as described.

5. In a device of the class described, the combination of a car-frame; a pair of platforms hinged to opposite sides of said frame on parallel horizontal axes, each of said platforms being adapted to lie in a substantially horizontal plane or to be turned to an upright position against said frame; suitable stops for limiting the rotation of said platforms on their hinges; an arm secured to each of said platforms and extended transversely inward from the pivotal axis of its respective platform; and a link pivotally connected to each of said arms so as to form a toggle-joint adapted to lock one of said platforms in its upright position when the other platform is in its horizontally-disposed position, substantially as described.

6. In a device of the class described, the combination of a car-frame; a pair of horizontally-disposed platforms hinged to the opposite sides of said frame, each of said platforms being adapted to lie in a substantially horizontal plane and being foldable into an upright position against the side of said car-frame; and suitable stops for limiting the rotation of said platforms on their hinges; and means connecting said platforms and adapted when one of said platforms lies in a horizontal position, to secure the other platform in its upright position and to lock said upright platform against being turned down until after the horizontal platform has been raised from its horizontal position, substantially as described.

Signed at Chicago this 7th day of September, 1903.

CARL SELLERGREN.

Witnesses:
RUDOW RUMMLER,
WM. R. RUMMLER.