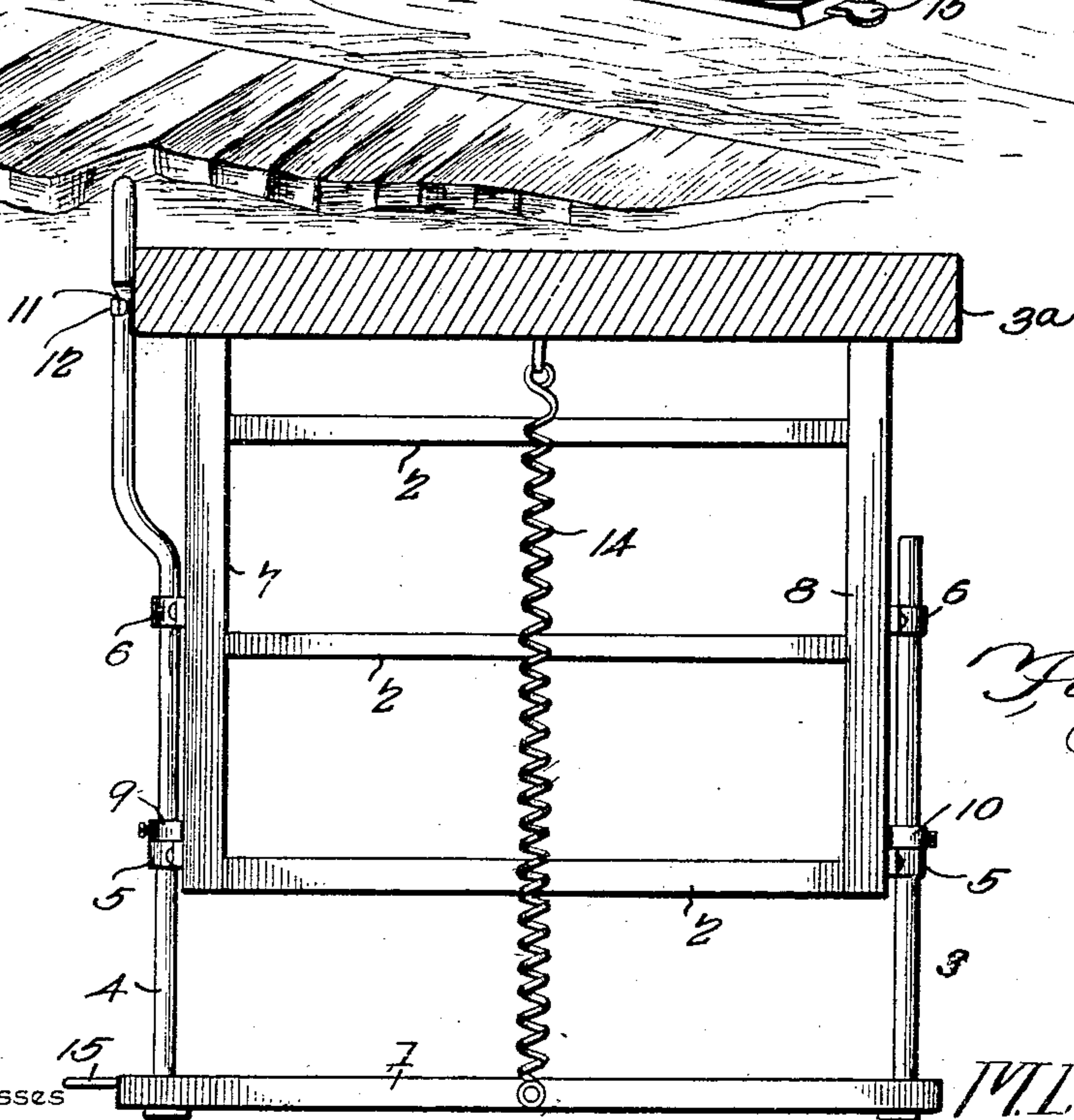
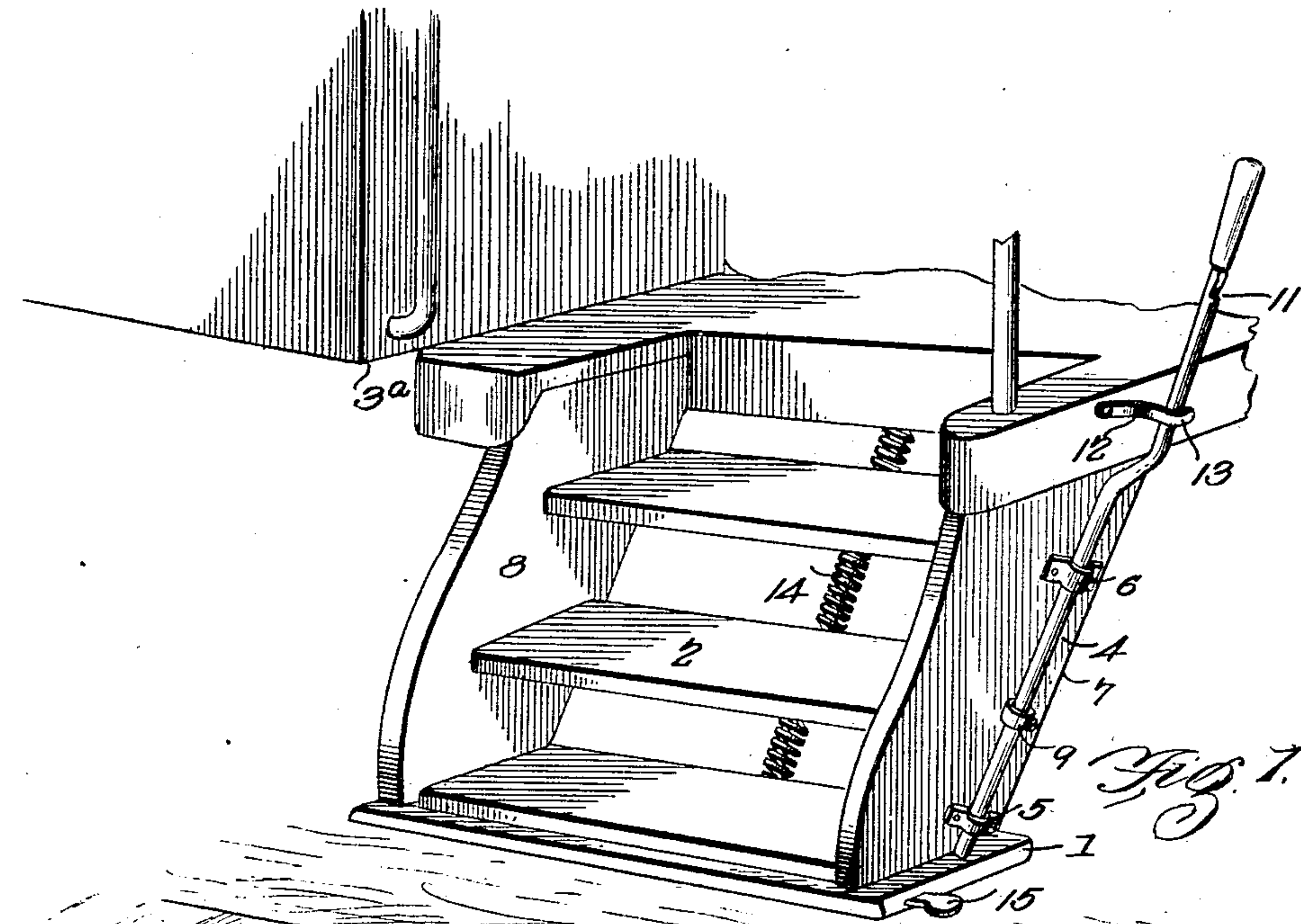


No. 684,278.

Patented Oct. 8, 1901.

M. LYTCH.
EXTENSION CAR STEP.
(Application filed July 25, 1901.)

(No Model.)



Witnesses
O. M. Simpson
J. F. Riley

by

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UNITED STATES PATENT OFFICE.

MILTON LYTCH, OF ROWLAND, NORTH CAROLINA, ASSIGNOR OF ONE-FOURTH
TO WILLIAM L. TOWNSEND, OF SAME PLACE.

EXTENSION CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 684,278, dated October 8, 1901.

Application filed July 25, 1901. Serial No. 69,708. (No model.)

To all whom it may concern:

Be it known that I, MILTON LYTCH, a citizen of the United States, residing at Rowland, in the county of Robeson and State of North Carolina, have invented a new and useful Extension Car-Step, of which the following is a specification.

The invention relates to improvements in extension car-steps.

10 The object of the present invention is to improve the construction of extension car-steps and to provide a simple, inexpensive, and efficient one adapted to be readily applied to the stationary steps of a railway passenger car or coach and capable of being readily operated to extend it to form a continuation of the car-steps and to fold it against the bottom car-step to arrange it out of the way.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of an extension car-step constructed in accordance with this invention and shown applied to a portion of a car, the extension-step being folded. Fig. 2 is a rear elevation of the same, the extension-step being extended.

Like numerals of reference designate corresponding parts in both figures of the drawings.

35 1 designates an extension car-step arranged beneath the stationary steps 2 of a car 3 and slidably connected with the same by means of rods 3 and 4, secured at their lower ends to the extension-step and arranged in suitable guides 5 and 6 of the sides 7 and 8 of the car-steps. The guides 5 and 6, which are arranged at the upper and lower portions of the sides of the car-steps, are mounted on the exterior of the same, and the lower guides are engaged by adjustable collars 9 and 10, mounted on the rods and provided with clamping-screws. The collars, which form adjustable stops, sustain the extension-step when the latter is subjected to the weight of a person, and they may be set at the desired point on the rods to arrange the extension-

step when extended at the desired elevation. The adjustable stops may be arranged to engage either of the guides, which preferably consist of plates provided with suitable eyes or openings. The rod 4, which is located at the extreme end of the car, is extended vertically and is provided with a suitable handle or head, and it has a shoulder 11 adjacent to its upper end. The long rod 4 is adapted to be moved downward by the hand or foot, and when the extension-step is extended in this manner the shoulder 11 is engaged by a resilient catch 12, secured at one end to the platform of the car at the end thereof and having its other end free. The spring is slightly curved near its free end to engage the rod, which has its upper portion offset from the platform by a bend 13, and when the catch is in engagement with the shoulder the step 1 is locked in its extended position. The extension-step is automatically returned to the position illustrated in Fig. 1 of the accompanying drawings by a coiled spring 14, when the resilient catch is disengaged from the shoulder of the operating-rod 4, and this disengagement may be effected by withdrawing the resilient catch and also by springing the upper portion of the operating-rod inward sufficiently to carry the shoulder out of engagement with the catch. This construction enables the extension-step to be released either from the ground or from the platform of the car. The coiled spring is secured at its upper end to the platform of the car, and its lower end is attached to the extension-step at the inner edge thereof, and it is distended when the step 1 is extended. Instead of employing a coiled spring for returning the extension-step a weight or any other suitable means may be provided for this purpose. The extension-step is provided with a projecting arm or plate 15, adapted to be engaged by the foot of a person or by the hand to enable the step to be readily extended by a person standing upon the ground.

It will be seen that the extension-step is exceedingly simple and inexpensive in construction, that it possesses great strength and durability, and that it is adapted to be readily applied to a car without necessitating any change in the construction of the same. It

will also be apparent that the extension-step will be of great advantage at small stations and other points on a railroad where there are no platforms and that when the extension-
5 step is folded beneath the car-steps it is entirely out of the way. Also it will be apparent that the adjustable stops which engage the guides of the car-steps support the extension-step and limit the downward movement
10 of the same.

What I claim is—

1. The combination with car-steps, of an extension-step provided with rods extending upward from it, one of the rods being extended-
15 ed to form an operating-rod, guides mounted on the car-steps and receiving the rods, a locking device for engaging one of the rods to hold the step in its extended position, and means for actuating the extension-step to fold
20 the same beneath the car-steps, substantially as described.

2. The combination with a car provided at its steps with guides, of an extension-step located beneath the car-steps and adapted to
25 form a continuation of the same, and provided

at its ends with rods arranged in the said guides, one of the rods being extended to form an operating-rod and having its upper portion offset from the car and provided with a shoulder, a resilient catch arranged to engage the
30 shoulder of the rod, and means for actuating the extension-step to fold the same beneath the car-step, substantially as described.

3. The combination with a car provided with steps and having guides, rods secured
35 to the extension-step and arranged in the said guides and provided with adjustable stops for engaging the same, a catch for engaging one of the rods to hold the extension-step in its
40 extended position, and means for returning the extension-step to its position beneath the car-steps, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MILTON LYTCH.

Witnesses:

J. W. WEBSTER,

T. W. BRAKE.