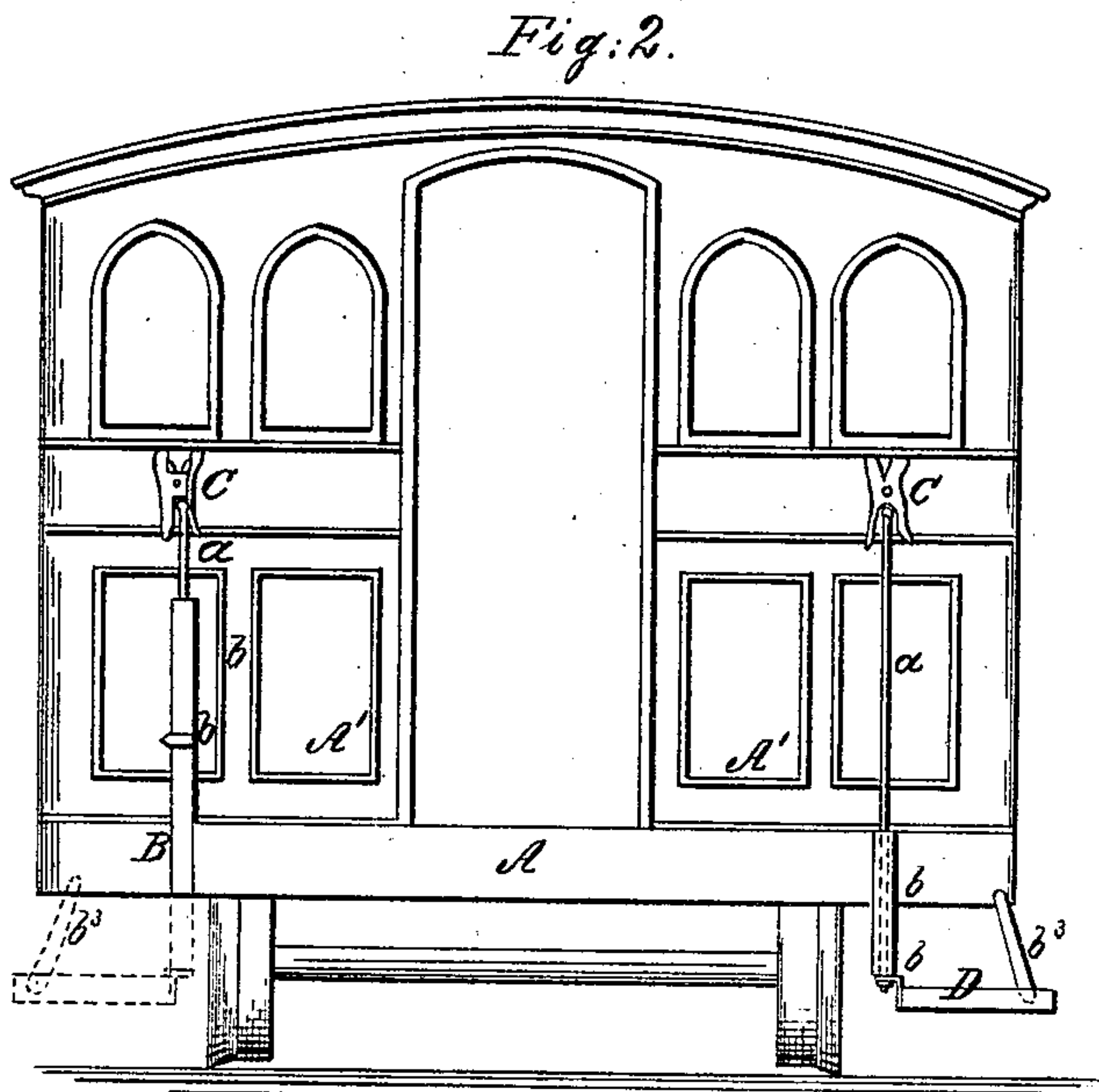
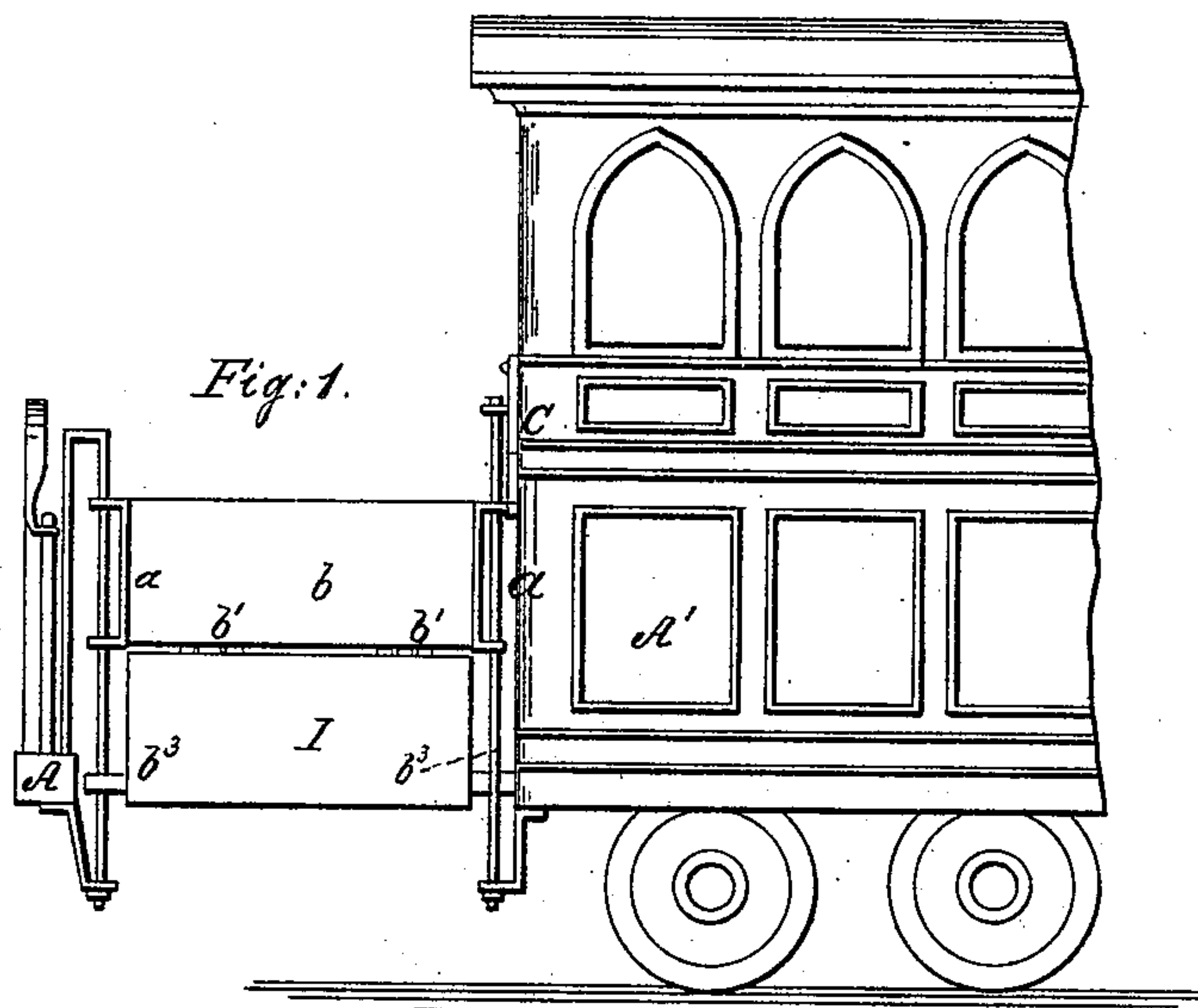


W. NEUMANN.

Car Step.

No. 81,194.

Patented Aug. 18, 1868.



Witnesses.
Jno W. Herthel
George W. Herbert.

Inventor;
Wm Neuman
By his Atty
McRandolph Leo

United States Patent Office.

WILLIAM NEUMANN, OF ST. LOUIS, MISSOURI.

Letters Patent No. 81,194, dated August 18, 1868.

IMPROVED ADJUSTABLE CAR-STEP.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM NEUMANN, of St. Louis, in the county of St. Louis, and State of Missouri, have made certain new and useful Improvements in Adjustable Car-Step and Guard; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of this invention is to provide an adjustable step for street-cars, and for other similar purposes, the said step being so arranged that when it is on the forward end of the car, it may be folded up into a guard or protector, to prevent persons from getting on or off the front platform, thereby in a great measure avoiding accidents, and personal injuries to passengers.

To enable those skilled in the art to make and use my improved step and guard, I will proceed to describe its construction and operation.

Figure 1, of the drawings, is a side elevation of a car with one of the improved steps applied thereto.

Figure 2 is a sectional end elevation of the same.

The car-platform A is attached to the car A', and otherwise constructed in the usual manner. The step B, by means of which the passenger rises to the platform, is hinged to the riser *b* by means of the hinges *b*¹. The riser has iron loops, *b*², projecting from each of its corners, and in such a manner as to receive the sliding rods *a*, attached to the body of the car at one side of the step, and to the railing thereof at the other side of the said step, as shown in fig. 1. The outer edges of the steps are held up by the pivoted links *b*³, when they are used as steps.

When used for steps, the parts B *b* will be thrown down, as shown at the right-hand side of the drawing, fig. 2, but when used as a guard, the said parts will be slid up on the rods *a*, as in fig. 1, and also at the left-hand side of the drawing in fig. 2. When thrown up in the latter position, the two pieces B *b* will form a guard, which will effectually prevent any one from getting on or off at that end of the car. When the step and riser are raised up for the latter purpose, as above described, the hooks C, attached to the car, will seize the top end of the riser, or a metal lip thereon, and hold the parts in that position until released.

Having described my invention, what I claim, is—

The car-step B, when constructed so as to be convertible at pleasure into a step or guard, substantially as herein described and set forth.

I also claim the construction of the step B, riser *b*, sliding rods *a*, and platform A, when arranged as and for the purpose herein set forth and described.

WILLIAM NEUMANN.

Witnesses:

M. RANDOLPH,

GEO. W. HERBERT.