

No. 697,293.

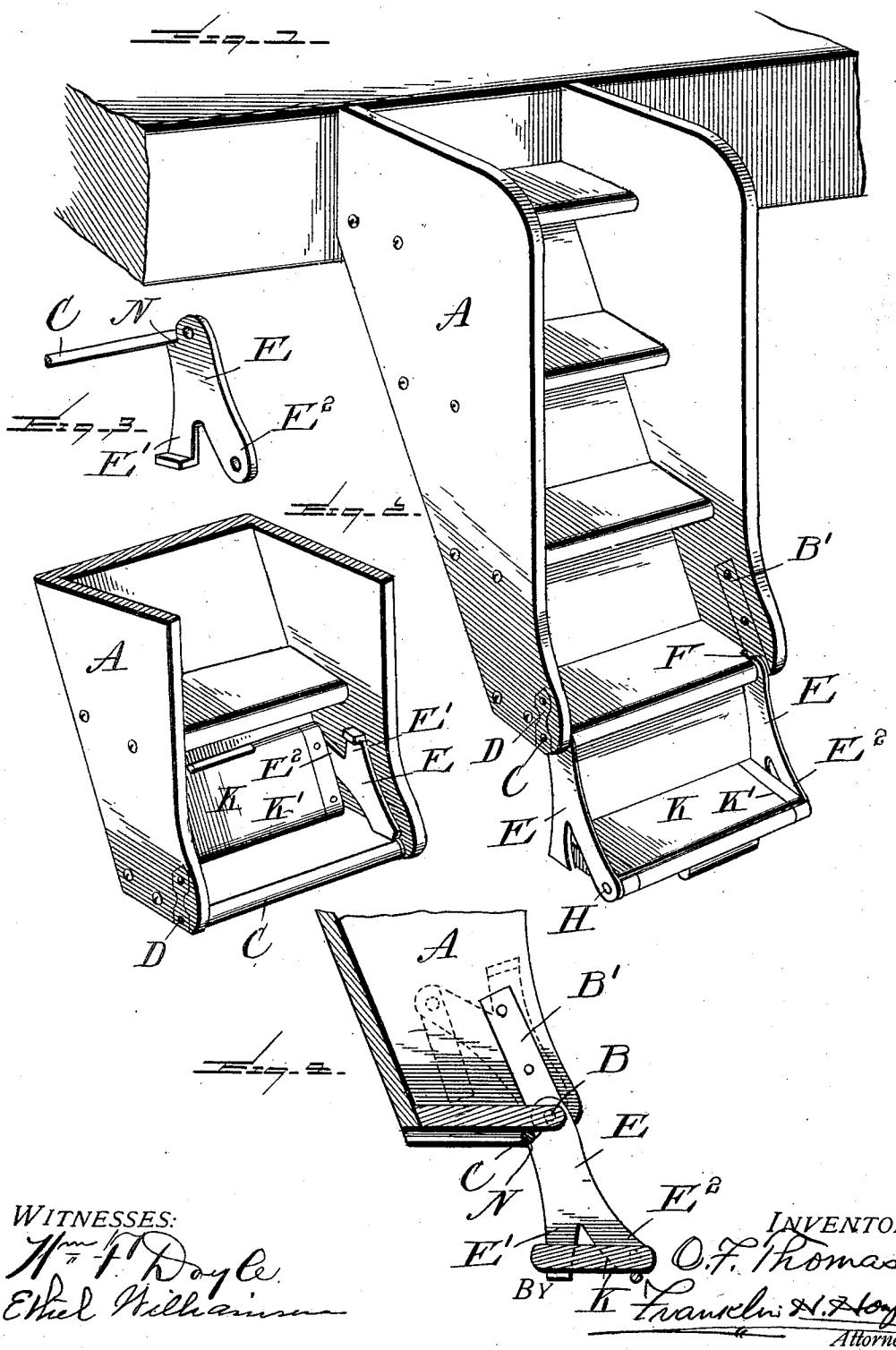
Patented Apr. 8, 1902.

O. F. THOMAS.

FOLDING CAR STEP.

(Application filed Jan. 27, 1902.)

(No Model.)



UNITED STATES PATENT OFFICE.

OSCAR F. THOMAS, OF ADAMS, NEW YORK, ASSIGNOR OF ONE-FOURTH
TO FRANK S. KENYON, OF ADAMS, NEW YORK.

FOLDING CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 697,293, dated April 8, 1902.

Application filed January 27, 1902. Serial No. 91,480. (No model.)

To all whom it may concern:

Be it known that I, OSCAR F. THOMAS, a citizen of the United States, residing at Adams, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Folding Car-Steps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it applies to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in folding steps for railway-cars; and it consists in the provision of means whereby the lower step may be folded back underneath the fixed steps and extended, thus providing a convenient means for mounting the steps or stepping from the same to the ground or platform, the folded step when extended being at such a location as will make it convenient for persons to step on and off the platform.

The invention consists, further, in various details of construction and combination of parts, as will be hereinafter more fully described and then specifically defined in the appended claims, and is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this application, and in which drawings similar letters of reference indicate like parts in the several views, in which—

Figure 1 is a perspective view showing my improved car-step as extended. Fig. 2 is a view showing the step folded. Fig. 3 is a detail view of one of the hinged step-supporting members. Fig. 4 is a sectional view vertically through a portion of the fixed steps, showing in side elevation the manner of limiting the rear movement.

Reference now being had to the details of the drawings by letter, A designates the side pieces of the fixed steps, and B is a rod which is supported in the bars B', which are countersunk in the inner faces of the side pieces of the fixed steps near the lower ends, said bars being slightly curved at their lower ends and receiving a rod C, which passes through apertures in the curved ends of the bars B'

and also through the side pieces of the fixed step. Said rod C may be held in any suitable manner, as by means of a fixed head and threaded nut, and preferably angled plates D are provided, which engage under the lower ends of the side pieces of the steps, and through which angled pieces said rod C passes. Pivotally mounted on the rod D are the step-supporting members E, which are forked, having two arms E' and E'', the lower step being recessed adjacent to each end, as at F, forming a space in which each member is adapted to fold back when not in use. To the forward arm E'' of each of said members is pivotally mounted a rod H, which rod passes through and supports the step K. Said step has, preferably, straps K', which pass about the ends, as illustrated, to protect the step against wear. The ends of the arms E' are bent at right angles, as illustrated, and form brackets, on which the free swinging ends of the step are adapted to rest to support the step when held in a horizontal position. Each of the members E is notched, as at N, on its rear edge adjacent to its pivotal point, said notch being adapted to receive the wire C when the step is extended, whereby the rear movement of said members is limited. When the step is not in use, it may be folded back underneath the lower fixed steps of the car, and the arms E' of the step-supporting member may be utilized as a convenient means whereby the step may be extended.

From the foregoing it will be observed that a step formed in accordance with my invention will be conveniently operated, either folded or extended, thus affording an easy and convenient means of access to and exit from the platform of a car, whereby elderly infirm people or children may readily step onto or off the platform without the inconvenience of the usual high fixed step.

While I have shown and described a specific form of step, still I reserve the right to make alterations in the details of construction of the same without departing from the spirit of the invention.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. A folding car-step, comprising in combi-

nation with the side pieces of the fixed steps, a rod supported thereby, step-supporting members pivotally mounted on said rod, a pivoted step mounted on said members, angled portions of the members forming bracket-arms to receive and support the swinging edge of the pivoted step, when extended, said step adapted to be folded between the lower fixed steps of the car, as set forth.

10 2. In combination with the side pieces of the fixed steps of the car, the rod supported thereby, folding step-supporting members, pivotally mounted on said rod, said members being forked a rod supported in corresponding arms of said forked members, one arm of each member being bent at right angles, and adapted to form a bracket for supporting the free swinging edge of the step when in a horizontal position, a rod underneath the fixed

15 20 step, against which the edges of said members are adapted to contact, to hold the folding step in a horizontal position, as set forth.

3. In combination with the side pieces of the fixed step, a rod supported thereby, the

25 step-supporting members pivotally mounted on said rod, and adapted to turn in recesses in the bottom fixed step, a folding step and rod carried thereby, which is pivotally mount-

ed in said members, the angled portions of the step-supporting members forming means 30 to support the free swinging edge of the step, a rod C mounted in the side pieces of the fixed step, and adapted to receive the notched portions of the step-supporting members, whereby the folding step when extended, is held in 35 a horizontal position, as set forth.

4. In combination with the side pieces of the fixed steps of a car, the bars B' countersunk in the inner face of said side strips, a rod supported in the curved ends of said 40 bars, the forked step-supporting members pivotally mounted on said rod, the angled arms E', and the folding step pivotally mounted on the arms E' of said members, a bar C supported by the side strips of the steps, and 45 against which the notched edge of the step-supporting members is adapted to contact, to hold the folding step in a horizontal position when extended, as set forth.

In testimony whereof I hereunto affix my 50 signature in presence of two witnesses.

OSCAR F. THOMAS.

Witnesses:

FRED B. WAITE,
F. S. KENYON.