

(No Model.)

2 Sheets—Sheet 1.

F. W. COOLBAUGH.

STEP ATTACHMENT FOR RAILWAY CARS.

No. 266,610.

Patented Oct. 31, 1882.

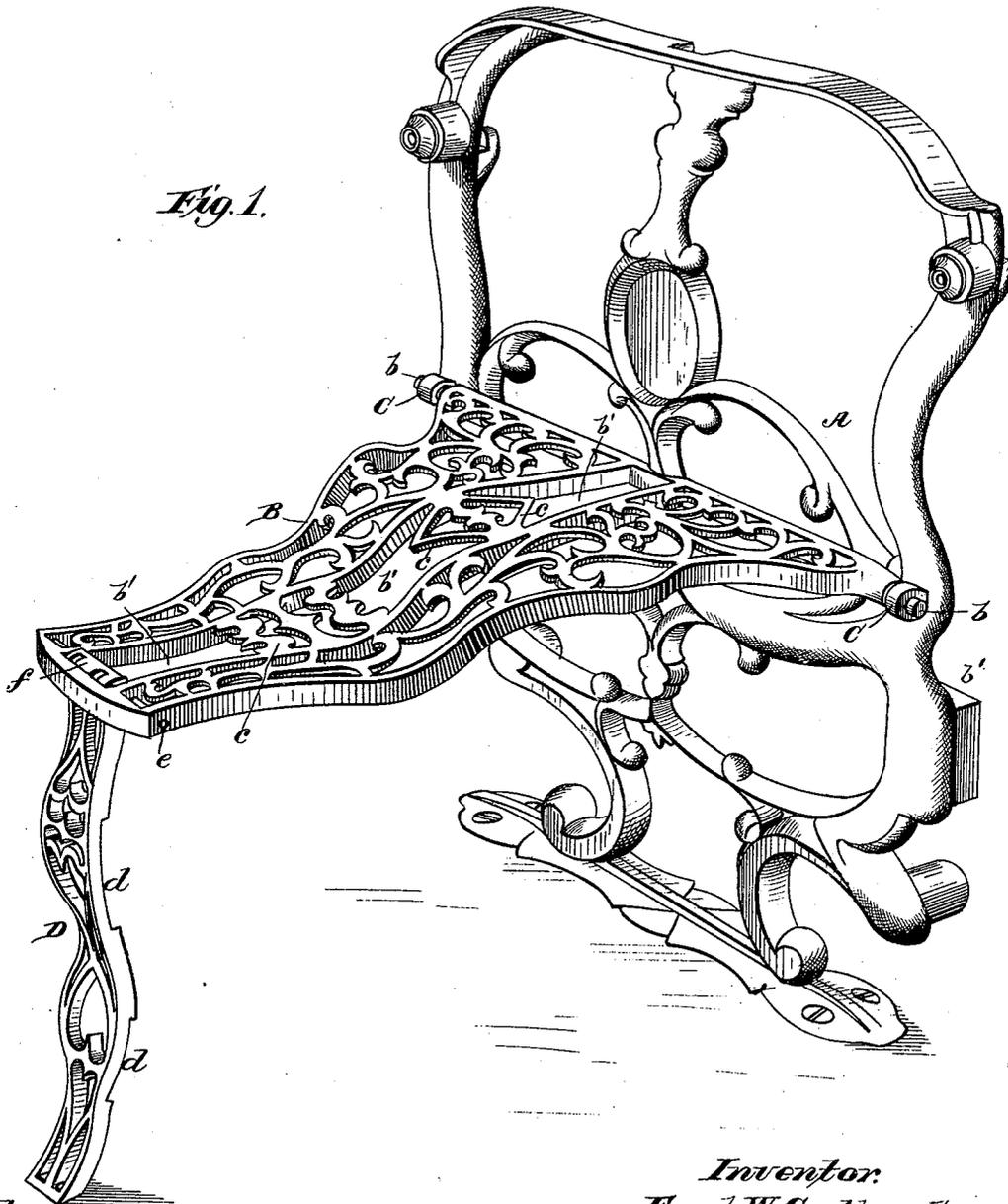


Fig. 1.

Witnesses,
Robert C. Swett,
J. A. Rutherford

Inventor,
Frank W. Coolbaugh.

By *James L. Norris,*
Atty.

(No Model.)

2 Sheets—Sheet 2.

F. W. COOLBAUGH.

STEP ATTACHMENT FOR RAILWAY CARS.

No. 266,610.

Patented Oct. 31, 1882.

Fig. 3.

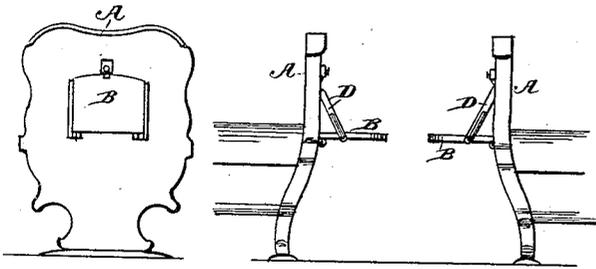
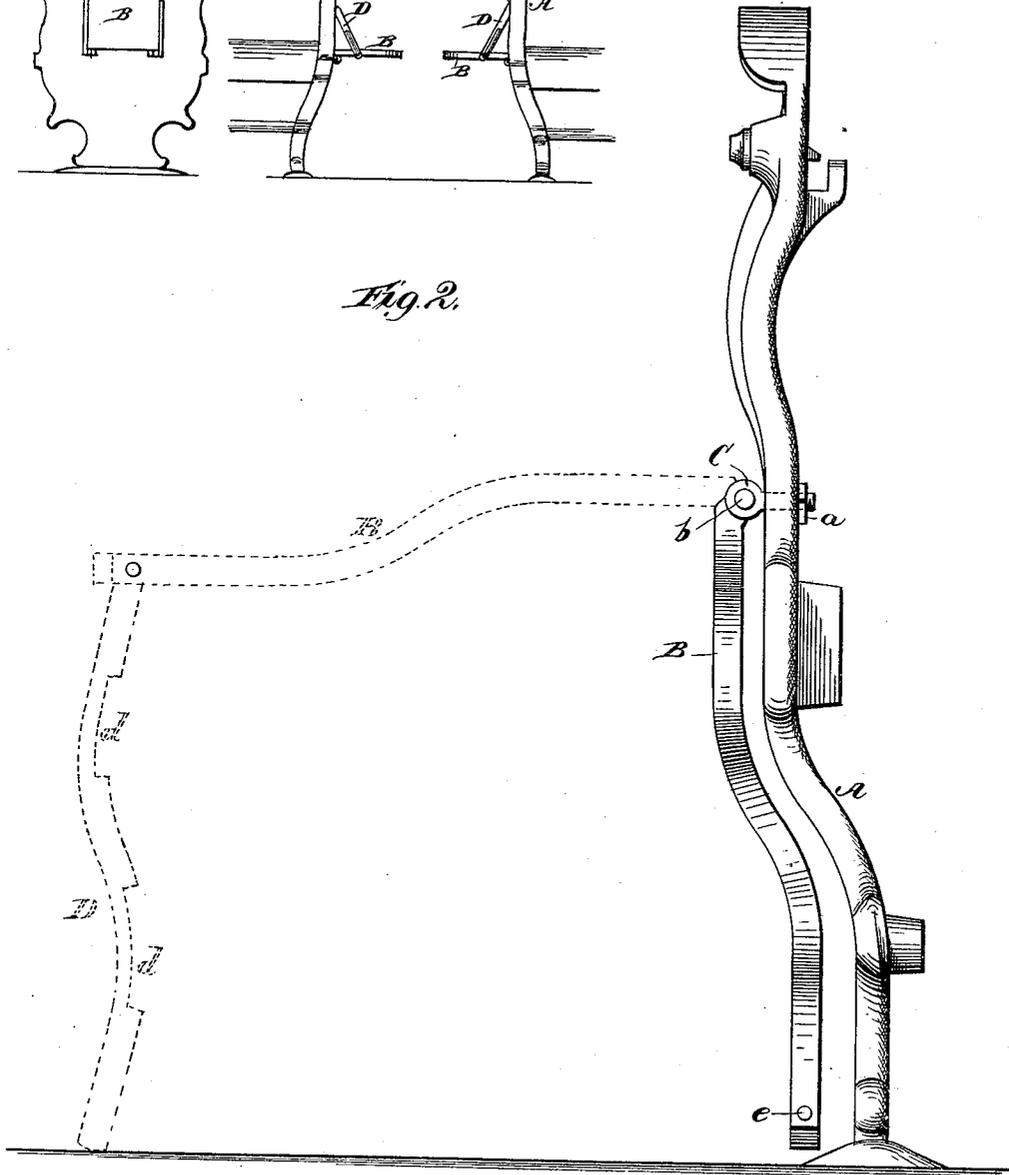


Fig. 2.



Witnesses.

Robert Everett
J. A. Rickerford

Inventor.

Frank W. Coolbaugh.

By James L. Norris,
Atty.

UNITED STATES PATENT OFFICE.

FRANK W. COOLBAUGH, OF HOBOKEN, NEW JERSEY.

STEP ATTACHMENT FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 266,610, dated October 31, 1882.

Application filed March 6, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. COOLBAUGH, a citizen of the United States, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Step Attachments for the Seat-Frames of Railway-Cars, of which the following is a specification.

My invention relates to the construction of seats for railway-cars, the object being to provide a convenient attachment adapted to be used as a step in reaching the lamps or gas-fixtures suspended from the car-roof, so that the same may be lighted or attended to with ease.

Heretofore it has been the custom of the brakeman or train attendant, when lighting the lamps or gas, to carry with him on his trips through the train some device or support on which to stand in order to reach the lamps. The supports usually employed for this purpose consist either of a stool, box, or step, which is placed in the aisle beneath the lamp, or a board or plank placed across the aisle and resting on the arm-caps of two opposite seats. These supports, however, besides being unsteady and interfering with the comfort of the passengers, are bulky and inconvenient to carry through the train, and the board placed upon the seat-arms is specially objectionable, on account of its liability to deface and wear the upholstery or other ornamentation of the same. Boards or brackets attached to the seat-frame have also been employed, but, being arranged without adequate support, are liable to become broken in use. In order to overcome these objections, I provide a folding step that is adapted to be pivoted to the end of the car-seat, with which it conforms in general outline, said folding step having a leg pivoted to its outer or lower end, and so arranged as to fold upward within a recess in the under side of the step when the device is not in use.

My invention therefore consists in the combination, with the frame of a railway-car seat, of a folding step or support so arranged as to be extended across or into the aisle when required for use as a support in reaching the car-lamps, and capable of being folded so as to hang at the side of the car-seat when not employed.

The invention also consists in certain details of construction, as hereinafter more fully set forth.

In the accompanying drawings, illustrating my invention, Figure 1 is a perspective view of the end of a car-seat provided with my improved attachment, and showing the same extended for use; and Fig. 2 is an edge elevation of the same with the step folded and suspended from its pivotal connection with the seat-frame, the position of the folding step, when extended for use, being indicated by dotted lines; Fig. 3, a modification of my invention.

Like letters denote like parts.

The letter A indicates the end of a car-seat frame, which may be of any ordinary or desired pattern, and is constructed of either metal or wood, metal, however, being deemed preferable. At a suitable point upon the outer surface of the seat end A, and at proper height, may be placed lugs or bearings for the pivots or trunnions of the folding step B. These bearings are preferably formed by eyebolts C C, which are inserted in holes that are drilled or otherwise formed in the seat end, the bolts being secured therein by means of nuts *a*, or equivalent devices. The body of the step B is broad at its inner or attached end, and tapers gradually to its opposite end, as shown in Fig. 1. At the broad end of the step B are journals or trunnions *b b*, by means of which it is pivoted in the eyebolts or bearings C C. To the narrow end of the step is pivoted a leg, D, which is adapted to be folded upward and fit into a recess in the under side of the folding step. The step B and leg D are preferably composed of cast metal, and may be of any desired pattern, the intention being to cast them in some ornamental design corresponding with that of the seat end, with which they will conform in outline.

It will be observed by reference to Fig. 1 that the step or pivoted support B is cast with a central longitudinal recess, *b'*, on its under side, which corresponds in outline with the leg D, that is adapted to fit therein. On the lower side of the support B the recess or slot *b'* is continuous; but on its upper side it is interrupted by the cross-pieces *cc*, which correspond with the depressions *d d*, that are formed in the back or inner side of the curved leg D.

These cross-pieces serve to strengthen the plate or step B and assist in holding the leg D in place when folded.

The folding leg D is pivoted in the outer or lower end of the recess *b'* by means of a pin, *e*, which is arranged close to the extreme end of the slot or recess *b'*, so that the leg will be prevented from opening too far when the device is in use, the upper end of the leg, in contact with the end cross-piece of the step-plate, being beveled or rounded, as shown at *f*, so as to permit a free inward movement of the leg in folding, but only a sufficient outward movement to insure a firm support for the step.

The form and dimensions of the step B and its leg D are preferably such that the parts, when folded and suspended from the end of the car-seat, will occupy but little space. This is readily accomplished by casting each of said parts with a curve so arranged that the lower part of the attachment, when folded, will be upon a vertical plane to the inner side of the upper part of said attachment, as shown in Fig. 2, in which the parts are also shown as conforming in vertical outline with the end of the car-seat frame. By this means the lower part of the attachment, when folded, is removed from all possibility of contact with persons passing through the car.

It will also be seen that by this construction of parts the leg D, when folded, is held securely in place without liability of falling inward against the seat-frame, the tendency of the leg being to bear outwardly against the cross-pieces *c c*, the engagement of which with the depressions *d d* in the back of said leg being sufficient to hold it without the necessity of employing any special fastening device. The weight of the attachment is also such that when folded it tends to remain suspended in a vertical position without swinging from side to side. For this reason devices for securing it to the side of the seat-frame when folded will not ordinarily be required, but, if desired, such fastenings may be readily applied. An elastic buffer may also be interposed between the end of the seat-frame and the folded attachment, should the same be deemed necessary.

This attachment or folding step need only be applied to the ends of those car-seats which are located beneath the lamps.

It will be seen that the manner of attaching the step to the seat is such that by simply removing the nuts and withdrawing the eye-bolts or bearings the attachment may be readily removed, when desired.

In Fig. 3 I have illustrated a modification of my invention, and in this instance the step B is applied to two opposite seat-frames, and is held in a horizontal position by pivoted bars D, the said steps being adapted to turn verti-

cally against the seat-frame and be held by a suitable fastening device. In this arrangement of steps the attendant places one foot upon each step respectively, and is thus enabled to brace and steady himself when lighting or extinguishing the lamp or gas.

It should be observed that the step is pivoted to the outer side of the seat-standard at a point intermediate the upper and lower ends thereof and adjacent to the seat proper, (which latter is supported, as usual, by lugs or brackets *b'*;) and hence when the step is brought to a horizontal position across the aisle it will be approximately on a line with the seat proper, which brings the step into such position as to enable the attendant to conveniently reach it with his feet with but little effort.

I do not wish to be understood as broadly claiming a car-seat standard provided with a folding seat. Such have heretofore been patented, but have been adapted to slide vertically in the seat-standard, and when drawn upward to spread out and form a supplemental seat in connection with the top edge of the standard. It will be obvious that such a device, while being of service as a seat, is not adapted to accomplish the object of my invention, as its location is too high, and, besides, no lateral support is provided, as is provided by the seat-standard in my invention, so that the attendant can brace and steady himself in lighting or extinguishing the lamps.

What I claim is—

1. A step pivoted in bearings on the outer side of a car-seat standard at a point intermediate the upper and lower ends thereof and adjacent to the car-seat, said step being arranged and adapted to swing to a horizontal position across the aisle between the car-seats, and to fold against the outer side of the seat-standard, and provided with folding legs or bars for bracing and sustaining the step when in a horizontal position, all substantially as and for the purposes described.

2. The combination of the frame of a railway-car seat, a folding step pivoted to the end of said frame and having a slot or recess on its under side, and a leg pivoted to the outer end of said step and adapted to fold within said recess, whereby the step may be extended across the aisle to serve as a support in lighting the car-lamps, or may be folded so as to remain suspended at the end of the seat-frame when not required for use, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

F. W. COOLBAUGH.

Witnesses:

J. J. MOORE,
S. M. LONG.