No. 608,335. Patented Aug. 2, 1898.

T. KENDRICK.

FOLDING CAR STEP.

(Application filed Dec. 16, 1897.)

(No Model.)

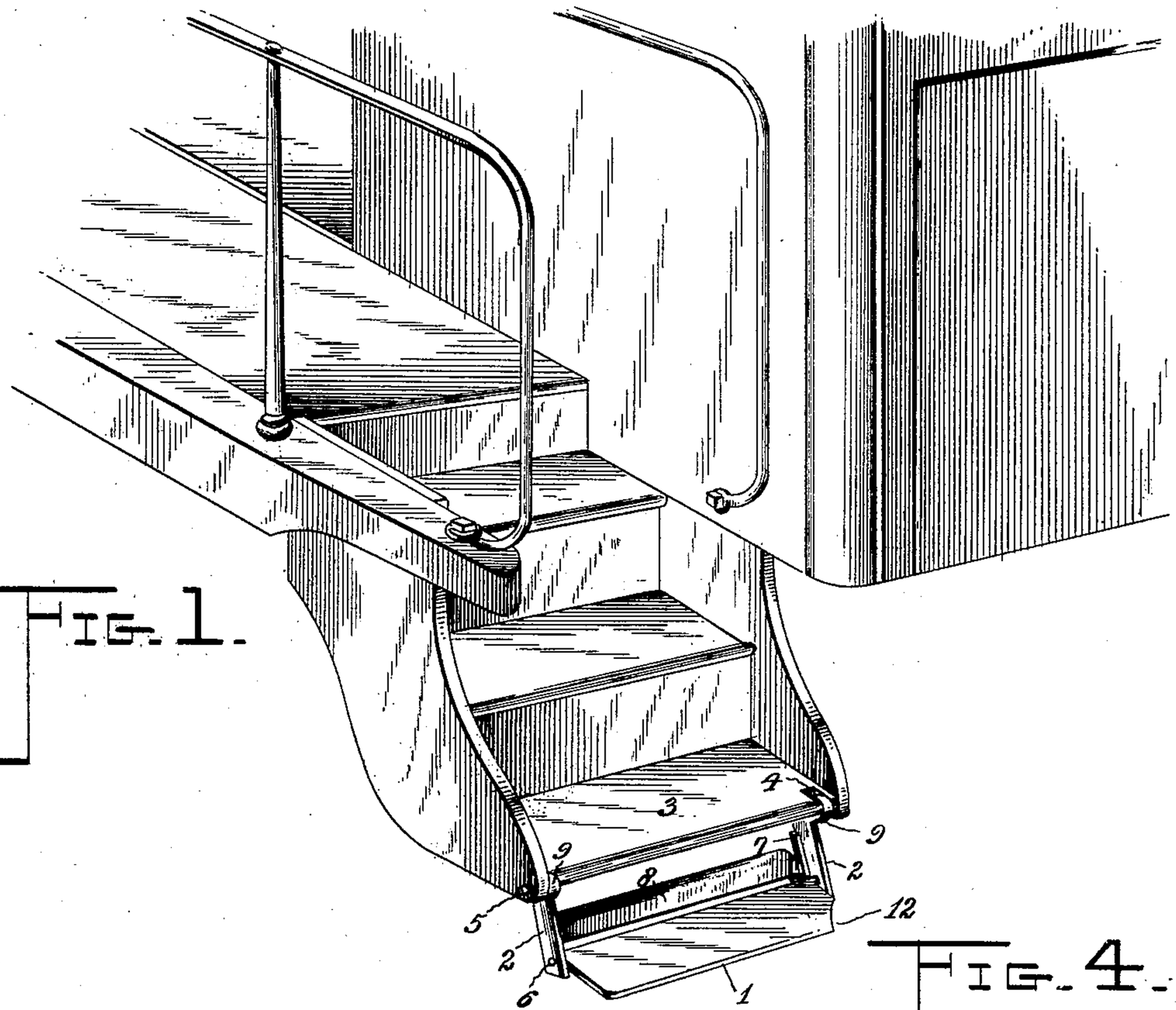

FIG. 1.

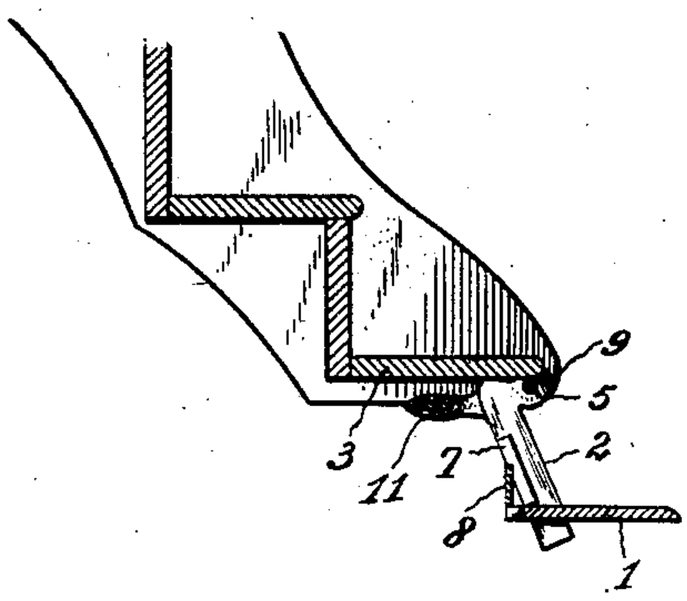

FIG. 2.

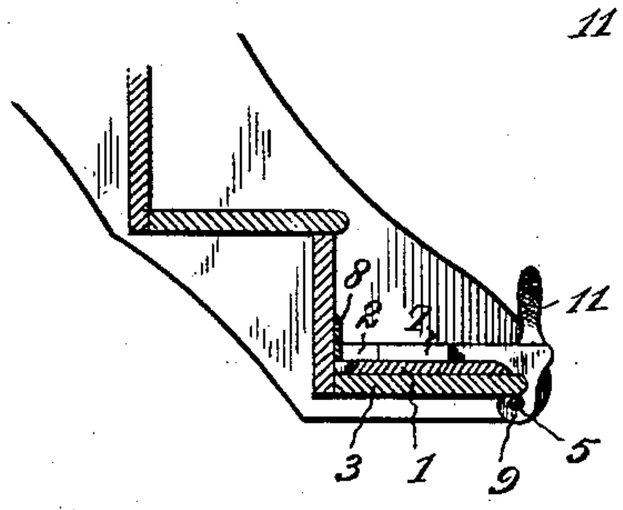

FIG. 3.

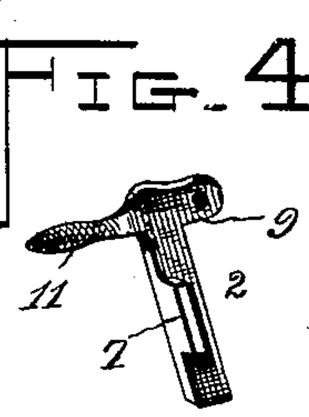

FIG. 4.

Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS KENDRICK, OF GLENWOOD SPRINGS, COLORADO.

FOLDING CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 608,335, dated August 2, 1898.

Application filed December 16, 1897. Serial No. 662,213. (No model.)

To all whom it may concern:

Be it known that I, THOMAS KENDRICK, a citizen of the United States, residing at Glenwood Springs, in the county of Garfield and State of Colorado, have invented a new and useful Folding Car-Step, of which the following is a specification.

The invention relates to improvements in folding car-steps.

The object of the present invention is to improve the construction of folding steps for railway-cars and to provide a simple, strong, and durable one adapted to be readily applied to car-steps and capable of being compactly folded when not in use.

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

In the drawings, Figure 1 is a perspective view of a folding car-step constructed in accordance with this invention and shown extended. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a similar view, the step being folded. Fig. 4 is a detail perspective view of one of the hinged riser-bars.

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

1 designates a folding step pivotally connected to the lower portions of a pair of riser-bars 2 near the lower ends thereof and hingedly connected by said bars to the lower step 3 of a car, as illustrated in Fig. 1 of the accompanying drawings. The lower car-step 3 is recessed at its outer edge at 4 to receive the upper portions of the bars 2, which are mounted on a pintle 5 of any suitable construction. The pivots 6 of the folding step 1 are located near its rear edge, and that portion of the step in rear of the pivots is adapted to abut against a stop 7, whereby the folding step is maintained in a horizontal position. The stops 7 consist of lugs or enlargements, and the folding step is provided at its rear edge with a guard 8, extending the entire length of the step and adapted to prevent the feet of passengers from slipping inward beyond the step 1.

The bars 2 are provided at their upper ends with arms or ears 9, perforated to receive the pintle 5 and extending forward substantially at right angles to the bars 2 when the step is unfolded, and they operate to offset the upper ends of the arms rearward sufficiently to enable them to engage the solid portion of the step 3 in rear of the slots 4. The arms or ears are also adapted to extend through the slots when the step is folded to permit the same to lie flat against the upper face of the car-step.

The stops 7 are arranged at the rear edges of the bars 2, and the step 1 is adapted to swing upward against the front faces or edges of the stops, which limit the inward swing of the step, and after the latter has been folded in this manner both it and the bars 2 are swung upward upon the step 3, as clearly shown in Fig. 3 of the accompanying drawings, the folding step fitting upon the lower step 3 and the guard fitting against the riser thereof. The step is compactly folded and the parts are arranged so that it cannot become accidentally injured when they are in their folded position.

The bar 2, adjacent to the body of the car, is provided at its hinged end with a handle 11, and the adjacent outer corner of the step 1 is cut away at 12 to provide a handhold. The handle 11, which extends from the bar 2 at the side opposite the arm 9, is disposed substantially at right angles to the bar and is arranged in convenient position when the step 1 is folded. By means of the handle 11 and the handhold 12 the step may be quickly unfolded and brought into operative position.

The invention has the following advantages: The folding step is exceedingly simple and inexpensive in construction and is adapted to be readily applied to the steps of cars to dispense with the portable steps usually employed. The parts are compactly folded when not in use, and as the folding step lies flat against the lowermost car-step and the guard fits against the adjacent riser the device when folded does not interfere with the use of the car-steps by trainmen. The guard, which is arranged at the inner edge of the folding step, is adapted to prevent the feet of passengers from slipping inward beyond the folding step, and it renders the folding step as safe as the ordinary car-steps.

The arms of the riser-bars, which extend

forward, are pivoted at their outer end at a point below the lowermost step of a car to leave the upper face of the latter entirely free, and they inwardly offset the riser-bars, so that their upper ends will engage the lower face of the car-step. The handle extends rearward from the upper end of one of the riser-bars in a direction opposite to that of the adjacent arm, and when the folding step is in use the handle is located beneath the car-step out of the way, but is brought into position for convenient use when the step 1 is folded.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a device of the class described, the combination with rigid car-steps, of the riser-bars 2 provided at their upper ends with outwardly-extending arms pivoted at a point beneath the lowermost step at their outer ends and inwardly offsetting the riser-bars to enable the upper ends of the same to engage the lower face of the lowermost car-step and leave the upper face of the latter entirely free, a handle extending rearward from the upper end of one of the riser-bars in a direction opposite to that of the adjacent arm, whereby it is located beneath the car-steps when the riser-bars depend therefrom and is arranged in convenient position for use when the riser-bars are folded upon the car-step, and a folding step pivotally mounted between the lower ends of the riser-bars, substantially as described.

2. In a device of the class described, the combination with rigid car-steps having a lower step 3 provided at its outer edge with recesses, of the riser-bars 2 provided at their upper ends with outwardly-extending arms pivoted at a point below the step 3, and offsetting the riser-bars rearwardly to permit the same to engage the lower face of the step 3 in rear of the recesses, said arms being arranged to swing into the recesses to enable the riser-bars to lie on the upper face of the step 3, a folding step pivotally mounted between the lower ends of the riser-bars, and a handle extending rearward from the upper end of one of the riser-bars at the angle formed by the arm thereof, whereby the handle will be arranged beneath the step 3 when the folding step is in operative position, and will extend upward from the step 3, when the folding step is arranged thereon, substantially as and for the purpose described.

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

THOMAS KENDRICK.

Witnesses:
JOHN H. SIGGERS,
HAROLD H. SIMMS.