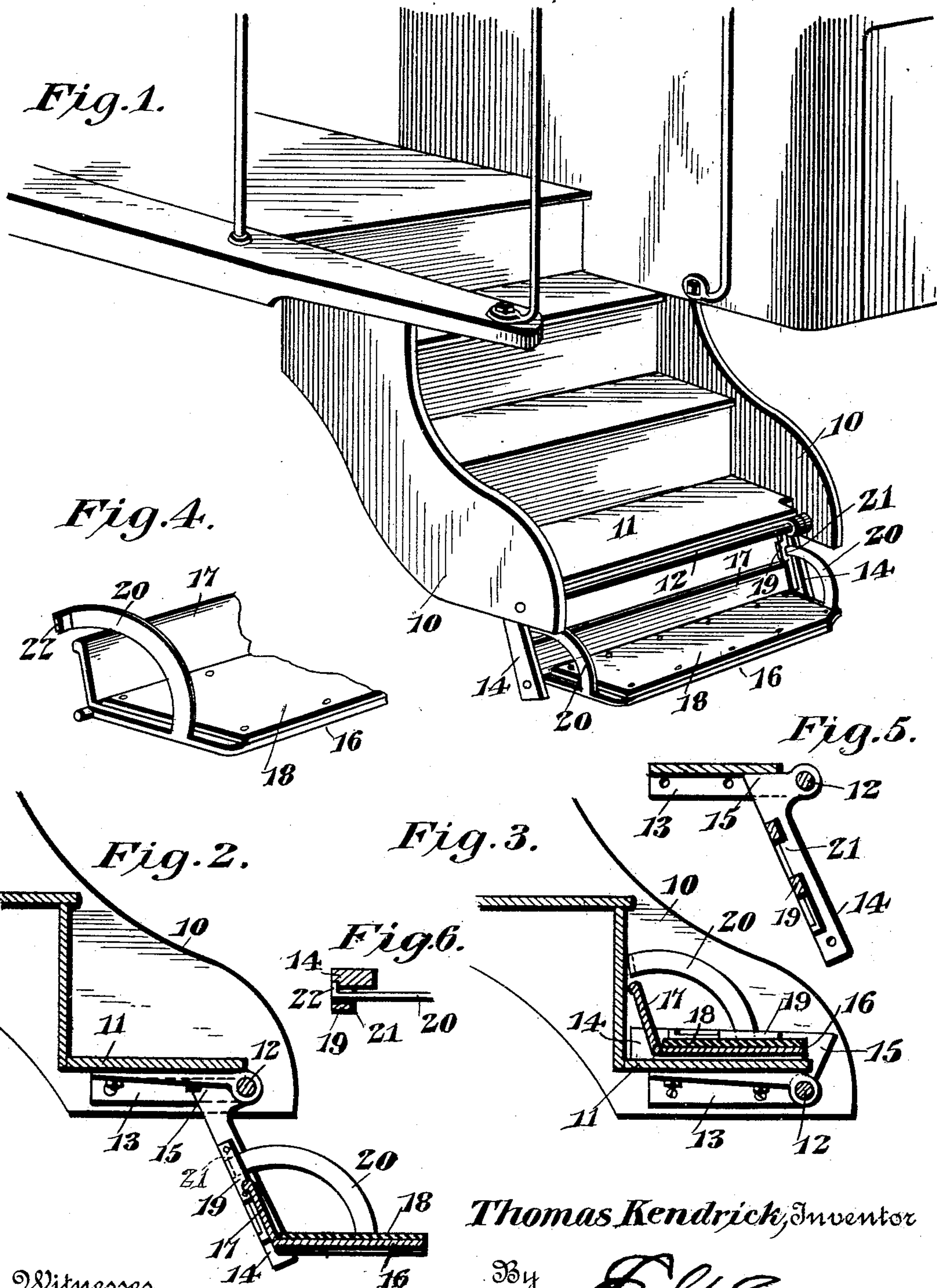


T. KENDRICK.

CAR STEP.

(Application filed Apr. 21, 1902.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS KENDRICK, OF GLENWOOD SPRINGS, COLORADO.

CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 711,051, dated October 14, 1902.

Application filed April 21, 1902. Serial No. 103,978. (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 Car-Step, of which the following is a specification.

The present invention relates to car-steps, and particularly to that class in which a lower foldable step is employed, which is arranged out of the way when the train is in motion.

The object of this invention is to improve the structure shown and claimed in a prior patent granted to me on August 2, 1898, and numbered 608,335, by providing a novel form of support for holding the lower or foldable step in its operative position, said support being so combined with the other elements that it constitutes a handle, by means of which the step can be moved from its folded position to an operative one, thereby obviating the necessity for the upwardly-projecting handle heretofore employed and providing a much stronger step that will sustain great weight.

The improved construction is fully illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of a portion of a car, showing the improved step arranged thereon and in operative position. Fig. 2 is a longitudinal sectional view through said step. Fig. 3 is a similar view with the step in its folded position. Fig. 4 is a detail perspective view of one end of the step-platform. Fig. 5 is a detail sectional view through one of the supporting-arms. Fig. 6 is a horizontal sectional view through said arm.

Similar numerals of reference designate corresponding parts in all the figures of the drawings.

The invention is to be applied to an ordinary car-step, said step being shown in the drawings, wherein the sides are designated by the reference-numerals 10, the lowermost step being indicated at 11. A pivot-rod 12 is secured at the outer lower corner of the step 11 by means of brackets 13, secured to the under side of the step and the side walls 10, and upon this rod is pivotally hung a pair of spaced arms 14, provided with inwardly-extending shoulders 15, that bear against the

under faces of the brackets to hold said arms in depending position and at an inclination.

A step-platform 16 is pivoted to and between the lower ends of the arms 14, said platform preferably being provided with an upstanding flange 17 along its rear edge and having a mat 18 arranged upon its upper face, this mat being constructed of rubber or other suitable material. The platform is foldable between the arms 14, and said arms are provided with inwardly-extending stop-ribs 19, against which the platform abuts to limit its swinging movement in this direction. Curved shanks 20 are secured to the ends of the platform and pass through openings 21 made for the purpose in the stop-ribs 19, said shanks being provided at their free ends with offset stop-lugs 22, that engage the arms to limit the swinging movement of the platform and hold it in horizontal position.

In use the lower step is arranged in the position shown in Fig. 1, wherein the platform 16 is supported in a horizontal position and is held rigidly, the several elements being strong enough and so related that they will support great weight. When it is desired to throw the step to inoperative position, the platform is first folded between the arms, and the entire structure is then swung over until it rests upon the lower step 11, as shown in Fig. 3. It is thus entirely out of the way, while the mat is still in its uppermost position, and the step may be used by the trainmen in the ordinary manner. When it is again desired to lower it, it is only necessary to grasp one or both of the shanks 20, which project above the step at the opposite ends of the same and now constitute handles, by means of which the step may be again thrown to operative position.

It will be apparent that this structure is much stronger than the one disclosed in my former patent, as the shanks 20, being connected to the outer ends of the platform, firmly support the latter. At the same time the shoulders 15 now bear against the supporting-brackets, and therefore have a firmer rest. Furthermore, the upstanding handle necessary in the previous device is now dispensed with, as the curved shanks 20 constitute the same.

From the foregoing it is thought that the

construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In a structure of the class described, the combination with a stationary step, of supporting-arms pivoted contiguous to the upper face of the step, said arms being foldable upon the step and movable to a depending position at the outer edge of the same, a movable step-platform pivoted to the arms, and
 20 a holding-shank carried by the platform and movably associated with one of the supporting-arms, said shank carrying a stop that engages the arm to limit the downward-swinging movement of the platform and projecting
 25 above the step when folded thereon.

2. In a structure of the class described, the combination with a stationary step, of supporting-arms pivoted contiguous to the upper face of the step, said arms being foldable
 30 upon the step and movable to a depending position at the outer edge of the same, a mov-

able step-platform pivoted to the arms and foldable against the same, and a holding-shank rigidly attached to the platform and slidably passing through one of the supporting-arms, said shank carrying a stop at its free end that engages the arm to limit the swinging movement of the platform. 35

3. In a structure of the class described, the combination with a stationary step, of supporting-arms pivoted contiguous to the step and having inwardly-extending stops, said arms being foldable upon the upper face of the stationary step, a movable step-platform pivoted to the arms and foldable against the stops thereof, and curved holding-shanks rigidly attached to the platform and passing through the stops of the arms, said shanks being provided with terminal stops that engage the arms to limit the movement of the platform, said platform and arms being foldable upon the step with the shanks projecting above the same and constituting handles whereby the steps may be unfolded. 45 50

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses. 55

THOMAS KENDRICK.

Witnesses:

HIRAM BULLIS,
 S. H. JONES.