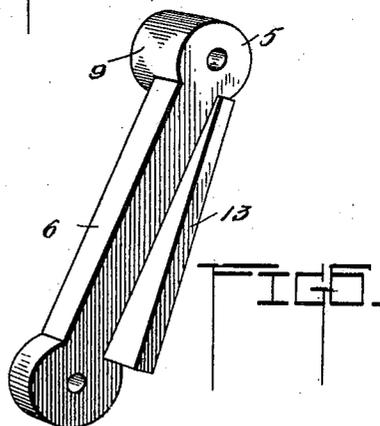
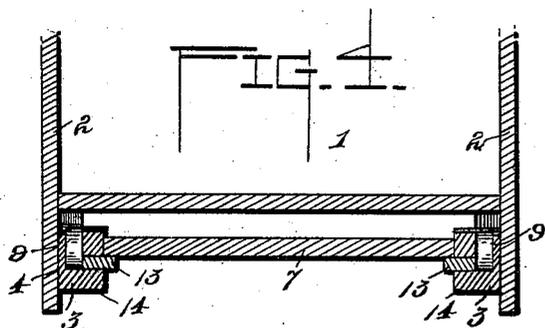
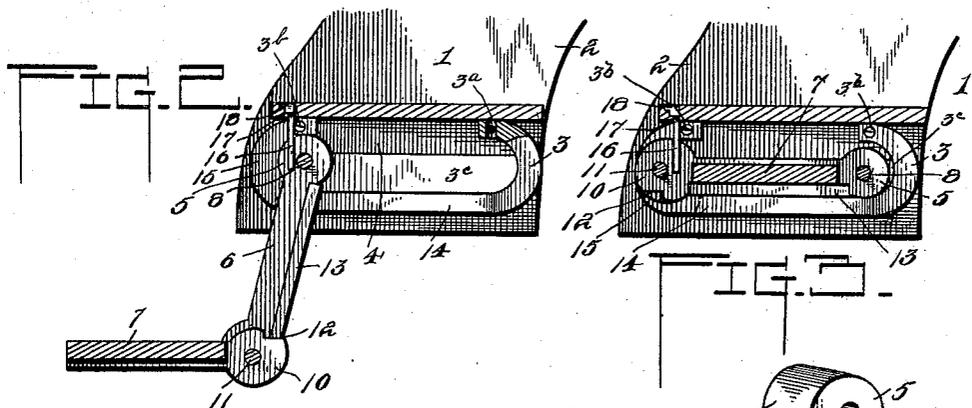
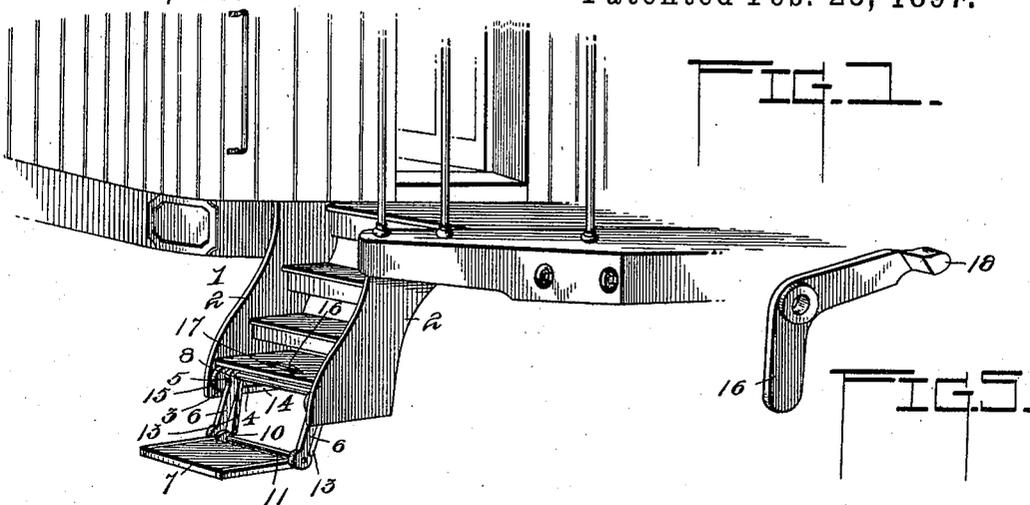


(No Model.)

W. P. NYE.
FOLDING CAR STEP.

No. 577,446.

Patented Feb. 23, 1897.



Inventor

William P. Nye.

Witnesses

M. L. Lane
J. H. Ciley

By *W. S.* Attorneys,

Cashnow & Co.

UNITED STATES PATENT OFFICE.

WILLIAM PINKNEY NYE, OF TAZEWELL, VIRGINIA.

FOLDING CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 577,446, dated February 23, 1897.

Application filed November 25, 1896. Serial No. 613,456. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PINKNEY NYE, a citizen of the United States, residing at Tazewell, in the county of Tazewell and State of Virginia, 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.

10 The object of the present invention is to improve the construction of folding car-steps and to provide a simple, inexpensive, and efficient one, adapted to form an extension of the ordinary stationary steps of a coach and
15 capable of being compactly folded and locked in such position to prevent it from accidentally sliding outward when a train is in motion.

The invention consists in the construction and novel combination and arrangement of
20 parts 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. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a similar view, the step being folded. Fig. 4
25 is a transverse sectional view of the same. Fig. 5 is a detail perspective view of the pivoted catch. Fig. 6 is a detail perspective view
30 of one of the riser-bars.

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

35 1 designates a stationary step of a coach provided with depending side portions 2, to the inner faces of which are secured cleats 3, forming depending ways 4, and the said cleats 3 consist of horizontal portions and inner and
40 outer arms extending upward from the terminals of the horizontal portions. The depending ways of the stationary step are engaged by the upper ends 5 of the riser-bars 6, which depend from the front of the stationary
45 step and support a folding step 7. The upper ends of the riser-bars, which are connected by a transverse rod 8, are provided with eyes having lateral extensions or bosses 9, which
50 extend into the ways 4. The step 7 is provided at its rear edge with projecting ears 10, which are pivoted to the lower ends of the riser-bars 6 by a horizontal pintle 11, passing

through perforations of the ears and the riser-bars. The ears are provided with shoulders 12, which engage flanges 13 of the riser-bars, 55 and the latter engage and are supported by horizontal flanges 14 of the cleats 3. The flanges 13 and 14, which extend longitudinally of the riser-bars and the cleats, form stops to limit the swing of the parts and present a strong and durable construction. 60

The front arms 15 of the cleats 3 are curved and present inner concave edges to conform to the configuration of the rounded bosses or extensions of the ends 5. The step in folding 65 is swung upward or inward against the flanges 13, and the riser-bars are swung up to a horizontal position and are moved inward to carry the folding step 7 beneath the stationary step 1, and the flanges 14 serve to support the riser-bars and the folding step, as clearly shown in
70 Figs. 3 and 4 of the accompanying drawings.

The terminals of the cleats 3 extend inward over the horizontal bottom portions thereof and are provided with vertical and horizontal 75 perforations 3^a and 3^b for the reception of bolts for securing the cleats to the car-step. The bolts are arranged in the horizontal perforations when the car-steps are provided with depending side pieces, as illustrated in Figs. 80 1 to 4, inclusive, of the drawings, but when car-steps are not provided with these depending side portions the bolts are arranged in the vertical perforations and pass through the lower stationary step. The cleats are provided 85 with vertical flanges 3^c, which form sides for the ways, when the car-steps have no depending side portions, and these vertical flanges prevent the folding step from slipping laterally. When the car-step is provided with depending side portions, the vertical flanges 90 3^c are unnecessary.

The transverse pintle is slightly offset from the adjacent edge of the folding step to provide an intervening space which is engaged 95 by a depending arm of a pivoted catch 16, mounted in a slot 17 of the horizontal step 1. The catch 16, which is substantially L-shaped, is pivoted at its angle, and one of its arms depends from the stationary step for engaging 100 the folding step, and the other arm of the catch is received within the slot 17 and has its upper edge flush with the upper face of the stationary step in order to present no ob-

struction. The outer end of the upper arm of the pivoted catch is provided with a laterally-disposed lug 18, forming a finger-piece. The lug is received within a recess which forms an arm of the slot, and the said lug 18 also prevents the upper arm from swinging downward through the horizontal slot 17.

It will be seen that the folding step is exceedingly simple and inexpensive in construction, that it is strong and durable, and that it is applicable to the stationary steps of the ordinary passenger-coaches and similar vehicles.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention, such as varying the construction of the depending ways to secure the same to the stationary steps of cars.

What I claim is—

1. In a device of the class described, the combination with a stationary step of a car or similar vehicle, of ways depending therefrom and located at opposite sides thereof, riser-bars having their upper ends engaging and pivotally connected with the said ways, a folding step provided at its inner edge with ears, a pintle pivoting the said ears to the lower ends of the riser-bars and forming an intervening space between it and the body portion of the step, the latter being adapted to be folded against the riser-bars and arranged beneath the stationary step, suitable stops for supporting the step and the riser-bars in their folded and operative positions, and a catch mounted on the stationary step and adapted to extend into the space between the pintle and the folding step, whereby the latter is locked in its folded position, substantially as and for the purpose described.

2. In a device of the class described, the combination of a stationary step provided with depending horizontal ways having a slot,

a folding step, riser-bars pivotally connected to the folding step and engaging the said ways and adapted to carry the folding step beneath the stationary step, and a pivoted L-shaped catch mounted in the said slot and arranged to engage the folding step to lock the same in its folded position, substantially as described.

3. In a device of the class described, the combination of a stationary step provided at its outer edge with a slot, ways depending from the stationary step and provided with longitudinal flanges forming stops and serving as supports, riser-bars having longitudinal flanges forming stops and supports, provided at their upper ends with bosses engaging the said ways, a folding step provided with ears and adapted to engage the flanges of the riser-bars, a horizontal pintle passing through the ears and the lower ends of the riser-bars and hinging the step to the latter, and a pivoted L-shaped catch mounted in the slot of the stationary step and engaging the folding step between the same and the pintle, substantially as described.

4. In a device of the class described, the combination of a stationary step, ways located beneath the step, riser-bars engaging said ways, a folding step carried by the riser-bars and adapted to be arranged beneath the stationary step, and a movable catch located beneath the upper face of the stationary step and depending therefrom in position to engage the folding step, whereby the latter is locked against outward movement in the said ways, substantially as described.

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

WILLIAM PINKNEY NYE.

Witnesses:

L. E. BRITAIN,
R. A. T. CLEMENT.