

D. F. LEMON.

CAR STEP.

APPLICATION FILED OCT. 18, 1909.

950,334.

Patented Feb. 22, 1910.

Fig. 1.

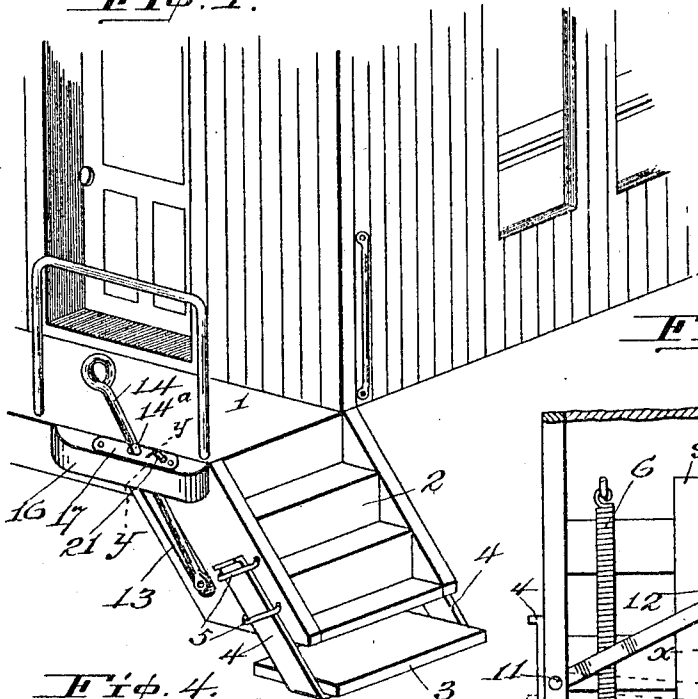


Fig. 3.

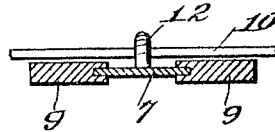


Fig. 2.

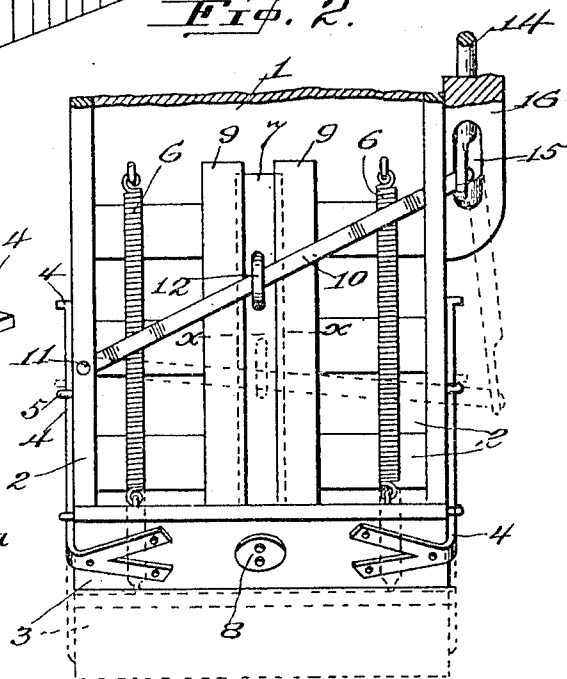


Fig. 4.

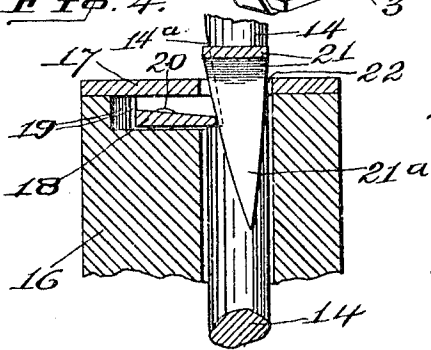


Fig. 6.

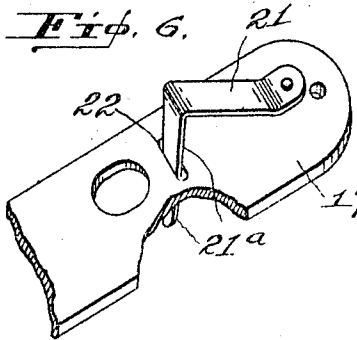
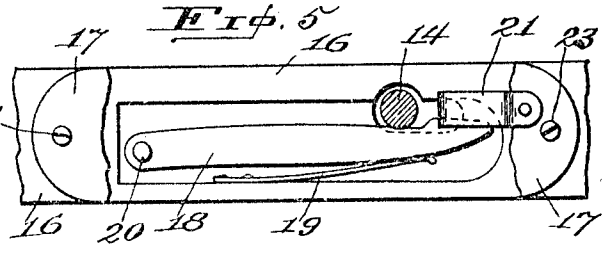


Fig. 5.



Witnesses
C. J. Bels
Wm. E. Volk Jr.

Inventor
Doct. Franklin Lemon,
By W. H. Wills.
Attorney

UNITED STATES PATENT OFFICE.

DOCK FRANKLIN LEMON, OF BARDLEY, MISSOURI.

CAR-STEP.

950,334.

Specification of Letters Patent.

Patented Feb. 22, 1910.

Application filed October 18, 1909. Serial No. 523,346.

To all whom it may concern:

Be it known that I, DOCK FRANKLIN LEMON, a citizen of the United States, residing at Bardley, in the county of Ripley and State of Missouri, have invented certain new and useful Improvements in Car-Steps, of which the following is a specification.

This invention relates to railway car steps and pertains especially to devices for operating a supplemental or auxiliary step in connection with the usual steps.

The object of the invention is to provide novel and peculiar means for moving a supplemental step into and out of position relative to the usual car steps.

A further object of the invention is to provide such mechanism as will slide a supplemental step in the same plane with ordinary car steps so that the supplemental car step will be given the same rise as the ordinary steps.

A still further object of the invention is to provide automatic mechanism for projecting and retracting a supplemental step relative to ordinary car steps, and to furnish novel means for holding the step in projected position and for releasing such mechanism in making the retraction.

In the accompanying drawings forming part of this application: Figure 1 is a perspective view showing the application of the invention with the supplemental step projected. Fig. 2 is a rear view showing the supplemental step projected in dotted lines. Fig. 3 is an enlarged cross-section on the line $x-x$, Fig. 2. Fig. 4 is an enlarged section on the line $y-y$, Fig. 1. Fig. 5 is a detail perspective view showing the spring catch and hand lever, partly broken away. Fig. 6 is a detail perspective view of the catch covering plate and trigger for operating the catch.

The same reference numerals denote the same parts throughout the several views of the drawings.

The platform 1 and the steps 2 shown in the drawings are of the ordinary form employed on railway cars. The supplemental step 3 is hung from the steps 2 by means of hangers 4 working through keepers 5, and the step 3 is retracted by means of a pair of spiral springs 6 connecting the step with the under side of the platform 1. The step 3 has a sliding bar 7 attached to it at 8, and such bar works in edge-grooves of a pair of guides 9 attached under the steps 2 and to the platform.

The mechanism for operating the bar 7 in projecting the step 3, consists of a lever 10, pivoted to one side of the steps 2 at 11, and extending through a loop 12 on the bar 7, and through a slot 13 in the other side of the steps 2; and a hand lever 14 loosely fulcrumed to the free end of the lever 10 so as to permit lateral movement of the hand lever according to the movement of the lever 10. The hand lever is provided with a notch 14^a, and extends through a slot 15 in a projection 16 of the platform 1, and through a cover-plate 17, hereinafter more particularly referred to.

The means for holding the step 3 in projected position consists of a catch 18 controlled by a spring 19, which, with the catch, is seated in a cut-out or cavity in the top of the platform projection. The catch is pivoted at 20, and is pressed into engagement with the hand lever by the spring 19, so that when the hand lever is pushed downwardly to such an extent as to project the step 3 into proper position, the catch falls into the notch 14^a and holds the step 3 in projected position.

In order to expeditiously release the hand lever and permit the springs 6 to automatically retract the step 3, I provide the cover-plate 17 with a spring trigger 21, having a wedge-shaped prong 21^a working through a slot 22 in the plate 17, and in the slot 15, and said plate is secured in place by screws 23. To dislodge the catch from the notch, the trigger is simply depressed so that the prong thereof engages the edge of the catch and forces it out of the notch.

It will be seen that the trigger and catch do not interfere with the pushing of the hand lever downwardly for operating the lever 10, and slide-bar 7 in projecting the step 3; that the step 3 is projected on the same angle or in the same plane with the steps 2, and may be given the same rise as the steps 2; and that the invention may be applied to any ordinary car platform, and be operated in connection with the usual car steps.

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

1. The combination, with a supplemental step for railway cars, hangers slidably connected to the sides of ordinary car steps and attached to the supplemental step, a pair of guides fixed to the under side of the

steps, and a bar slidable between the guides
and attached to the top of the supplemental
step, of means for operating the step com-
prising a lever connected to the bar and
5 pivoted to one side of the steps, and extend-
ing across the steps and through the other
side thereof, a hand lever fulcrumed to the
cross-lever and spiral springs attached to
the under side of the steps and to the top
10 of the supplemental step for retracting it.
2. The combination, with a supplemental
step for railway cars, hangers slidably con-
nected to the sides of ordinary steps and
attached to the bottom of the step, a pair
15 of guides having edge grooves and secured
to the under side of the steps, a bar working
in the grooves and attached to the top of the
step, and a loop on the bar, of a lever pivoted
in one side of the steps and extending
20 through the loop and through the other side

of the steps for sliding the bar, a hand lever
fulcrumed to the said lever and having a
notch, spiral springs for retracting the step,
and means for holding the step projected
comprising a spring controlled catch for 25
engaging the said notch.

3. The combination, with a hand lever for
operating a supplemental car step, and hav-
ing a notch therein, and means connecting
the lever with such step, of means for con- 30
trolling the movement of the lever, compris-
ing a spring controlled catch engaging the
notch, and a spring trigger adapted to en-
gage the catch to force it out of the notch.

In witness whereof I hereunto set my 35
hand in the presence of two witnesses.

DOCK FRANKLIN LEMON.

Witnesses:

G. W. LANDISS,

J. S. WOODRING.