(No Model.)

C. D. WHITE.

STEP FOR WAGONS.

No. 415,661. Patented Nov. 19, 1889.

Fig. 1.

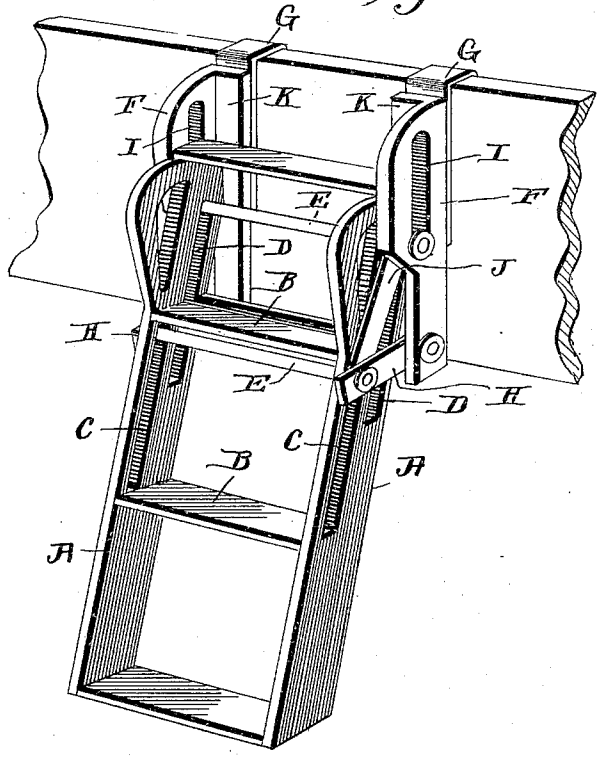


Fig. 2.

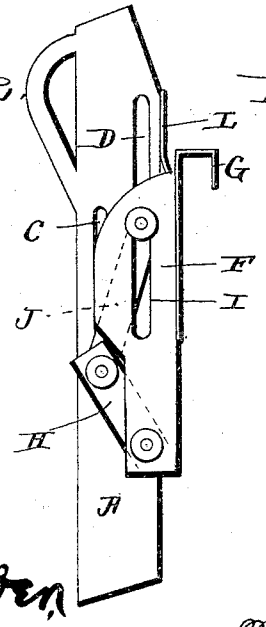
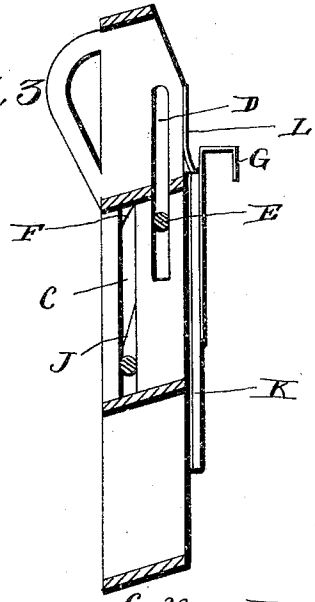


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CULLER D. WHITE, OF GLEESON STATION, TENNESSEE.

STEP FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 415,661, dated November 19, 1889.

Application filed April 5, 1889. Serial No. 306,048. (No model.)

To all whom it may concern:

Be it known that I, CULLER D. WHITE, a citizen of the United States, residing at Gleeson Station, in the county of Weakley and State of Tennessee, have invented new and useful Improvements in Steps for Wagons, of which the following is a specification.

My invention relates to improvements in steps for wagons; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view showing the device in position for use. Fig. 2 is a side view showing it folded as it appears when not in use. Fig. 3 is a longitudinal section of the same.

The frame of the steps is composed of the side bars A and the cross-bars B, secured between the side bars and forming platforms or steps, as shown. The side bars are provided with the longitudinal slots C D, which are arranged near the front and rear edges of the side bars and have their adjacent ends extending somewhat past each other, as shown. The slot C is formed at about the center of the side bar, while the slot D extends to the top of the same. Cross-bars or rounds E extend through the slots C D, and the hanging devices are secured to and carried by these cross-bars or rounds. The hanging devices comprise the suspending arms F, having the hooks G at their upper ends and adapted to engage over the upper edge of the wagon-body, and the links or brace-arms H, pivoted to the lower ends of the suspending arms. The said brace-arms have their free ends pivotally mounted on the ends of the lower cross-bar E, which plays in the slot C, and the suspending arms are provided with longitudinal slots I, which receive the ends of the upper cross-bar E, as shown. The said cross-bars E are maintained a uniform distance apart during their movements by the links J, having their ends secured thereto. These links J further serve to prevent the lower cross-bar dropping when the device is in use. The suspending arms are further provided at their upper ends with the inwardly-projecting ribs K, which move on the edges of the side bars A and present a broader surface, to which the hooks G may be secured, so as to permit the use of wider and stronger hooks.

In practice when the device is in use the hooks G are engaged over the upper edge of the wagon-body, as clearly shown in Fig. 1, and the ladder then drawn downward and outward, so that the passengers can easily pass upward over the steps into the wagon. When the device is in this position, the cross-bars E will be at the upper ends of the slots C D, and the steps or ladder will be supported thereby. The suspending arms will bear against the side of the wagon-body, and the brace-arms will extend horizontally outward, so as to hold the steps away from the wagon-body. The upper cross-bar E will be resting on the lower ends of the slots I in the suspending arms and will be thereby prevented from falling, so that the device will be firmly supported. When the device is not in use, the brace-arms are swung downward and outward, thereby drawing the suspending arms inward toward the side bars A, after which the steps are pushed upward, causing the cross-bars E to slip through the slots C D, so that the steps will be folded up against the side of the wagon-body out of the way. The steps are prevented from falling when in this position by the springs L, secured to the rear side of the side bars A and engaging the upper ends of the suspending arms, as clearly shown.

It will be seen from the foregoing description that I have provided a very simple and efficient device by which passengers can easily and rapidly pass into the wagon, and which can be folded into a compact space when not in use. The device is always within convenient reach and can be quickly extended into an operative position when desired for use or folded up out of the way when not in use.

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

1. The combination, with the step-frame having the longitudinally-slotted side bars, of the cross-bars or rounds playing in the slots of said side bars and the hanging devices carried by the cross-bars, as set forth.

2. The combination, with the step-frame

having the slotted side bars, of the cross-bars or rounds moving in the slots of said side bars, the suspending arms engaging the upper one of said cross-bars or rounds and provided with hooks adapted to engage the upper edge of the side of the wagon-body, and the brace-arms pivotally secured to the lower cross-bar and to the suspending arms, as set forth.

3. The combination, with the side bars A, of the step-frame, the cross-bars E, playing in slots in the said side bars, the links connecting the said cross-bars, the suspending arms engaging the upper cross-bar E, and the brace-arms secured to the suspending arms and the lower cross-bar, as set forth.

4. The combination, with the side bars A, of the step-frame having the slots C D, the cross-bars E, moving in said slots, the links J, connecting said cross-bars, the suspending arms provided with the hooks G and having the slots I, engaging the ends of the upper cross-bar E, and the brace-arms H, secured to the lower-cross-bar E and the suspending arms, as set forth.

5. The combination of the step-frame having the side bars, the suspending arms mounted thereon, and the springs secured to the rear sides of the side bars and engaging the ends of the suspending arms, as specified.

6. In a step-ladder attachment, the suspending arms F, having the hooks G, combined with the step-frame pivotally attached by links to the arms F, whereby the step-frame may be collapsed and arranged between the arms when not in use, as set forth.

7. In a step-ladder attachment, the suspending arms F, having hooks G, and slots I, combined with the step-frame pivotally attached by links and bolts or cross-bars to the arms F, the bolts or cross-bars sliding in the slots I, as set forth.

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

CULLER D. WHITE.

Witnesses:
J. D. REDDICK,
THOS. L. NEAL.