(No Model.)

H. C. REAGAN, Jr.

CAR STEP.

No. 273,155. Patented Feb. 27, 1883.

Fig. 1.

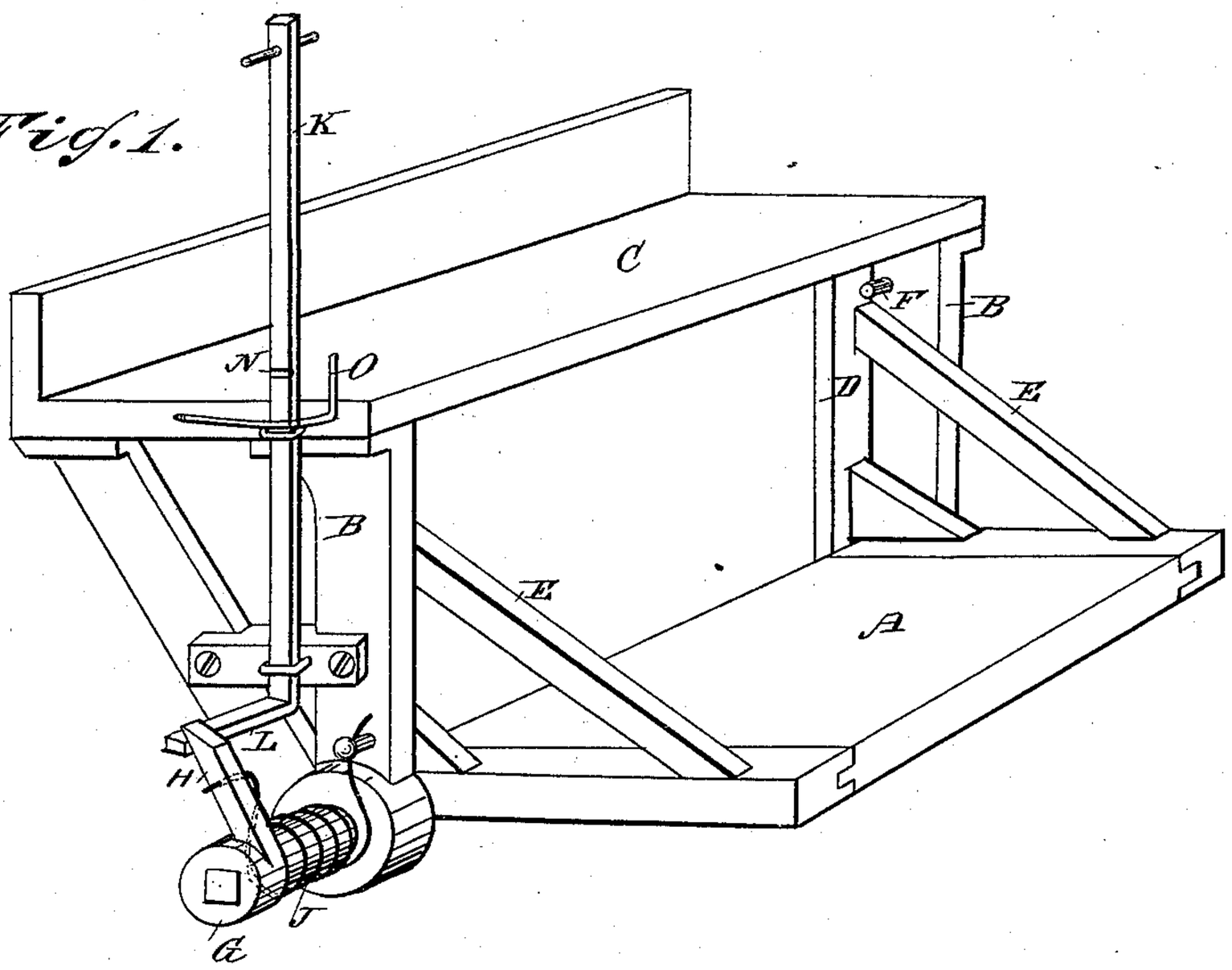

Fig. 3.

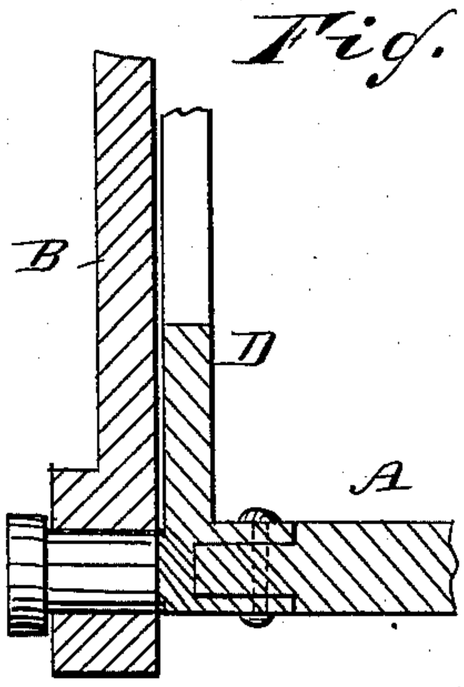

Fig. 2.

WITNESSES:

Theo. G. Hoster.

C. Sedgwick

INVENTOR:

H. C. Reagan Jr.

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HARRY C. REAGAN, JR., OF WEST CHESTER, PENNSYLVANIA.

CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 273,155, dated February 27, 1883.

Application filed November 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, HARRY C. REAGAN, Jr., of West Chester, in the county of Chester and State of Pennsylvania, have invented a new and Improved Car-Step, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new car-step which can be swung up when not in use, and which can be turned down very easily and rapidly in case passengers wish to get on or off the cars.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved car-step, showing it turned down for use. Fig. 2 is an end elevation of the same, showing it turned up. Fig. 3 is an enlarged detail longitudinal elevation of one end, showing the pivot.

A step, A, is pivoted to the lower ends of the downwardly-projecting end pieces, B, of a car-step, C, of the usual construction. The pivoted step A is provided with end pieces, D, at right angles to the step, which end pieces are braced by means of braces E. When the step A is turned down to be in a horizontal position the end pieces, D, strike against check pins or studs F or other check-blocks projecting from the inner surface of the end pieces, B. The outer end pivot, G, of the pivoted step A projects beyond the end piece, D, and is provided with a crank-arm, H, which rests against one end of a spring, J, surrounding the pivot G, and having its other end secured to the end piece, D, which spring J throws the step A upward into a vertical position. A rod, K, is held to slide vertically in the outer surface of the outer end piece, B, of the step C, and is provided at its upper end with a suitable handle and at its lower end with a rectangularly-projecting arm, L, against which the crank-arm H of the pivot G rests.

The rod K is provided with one or more notches, N, into which a spring, O, secured to the end of the step C, is adapted to pass, for the purpose of locking the rod K and the step A in the desired position.

The operation is as follows: When the step is not being used it is held in the vertical position by the spring J, the rod K being lowered, as shown in Fig. 2. If the step is to be used, the rod K is released and is pulled, and thereby turns the crank-arm H in the direction of the arrow *a'* and swings the step A into the horizontal position. The step A is locked in this position by locking the rod K in position by means of the spring-latch O.

By means of the above-described step, entering or leaving a car is greatly facilitated, as the step A, when in a horizontal position, is near the ground, and the person need not step as high as when the usual steps only are provided. The step does not project from the side of the car when turned up, and thus cannot be broken by striking against objects at the side of the track. The step can be easily and rapidly raised and lowered by the brakeman or conductor at the stations. The step cannot become slippery or covered with ice and snow in winter, as it is most of the time held in a vertical position, and thus the snow cannot remain on the same.

The pivot G is preferably cast integral with an end piece attached to the step A.

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

1. The combination, with a car-step, of a step pivoted to the same, and of a spring for swinging the step upward into a vertical position, substantially as herein shown and described, and for the purpose set forth.

2. The hinged step A, having one pivot, G, extended through its bearing, and provided with a spiral retractor-spring adapted to throw the step up, as described.

3. The combination, with the car-step C, of the pivoted step A, the pivot G, the spring J, the crank-arm H, and the sliding rod K, having the arm L, substantially as herein shown and described, and for the purpose set forth.

4. The combination, with the car-step C, of the pivoted step A, the pivot G, the spring J, the crank-arm H, the sliding rod K, having an arm, L, and the notches N, and of the locking spring-latch O, substantially as herein shown and described, and for the purpose set forth.

5. The combination of the arm L, attached to a vertical slide, and an arm, H, attached to a spring-actuated pivot, G, whereby the spring may be prevented from retracting the step, as described.

HARRY CLIFTON REAGAN, JR.

Witnesses:

W. IRVIN REAGAN,

G. H. WHITELEY.