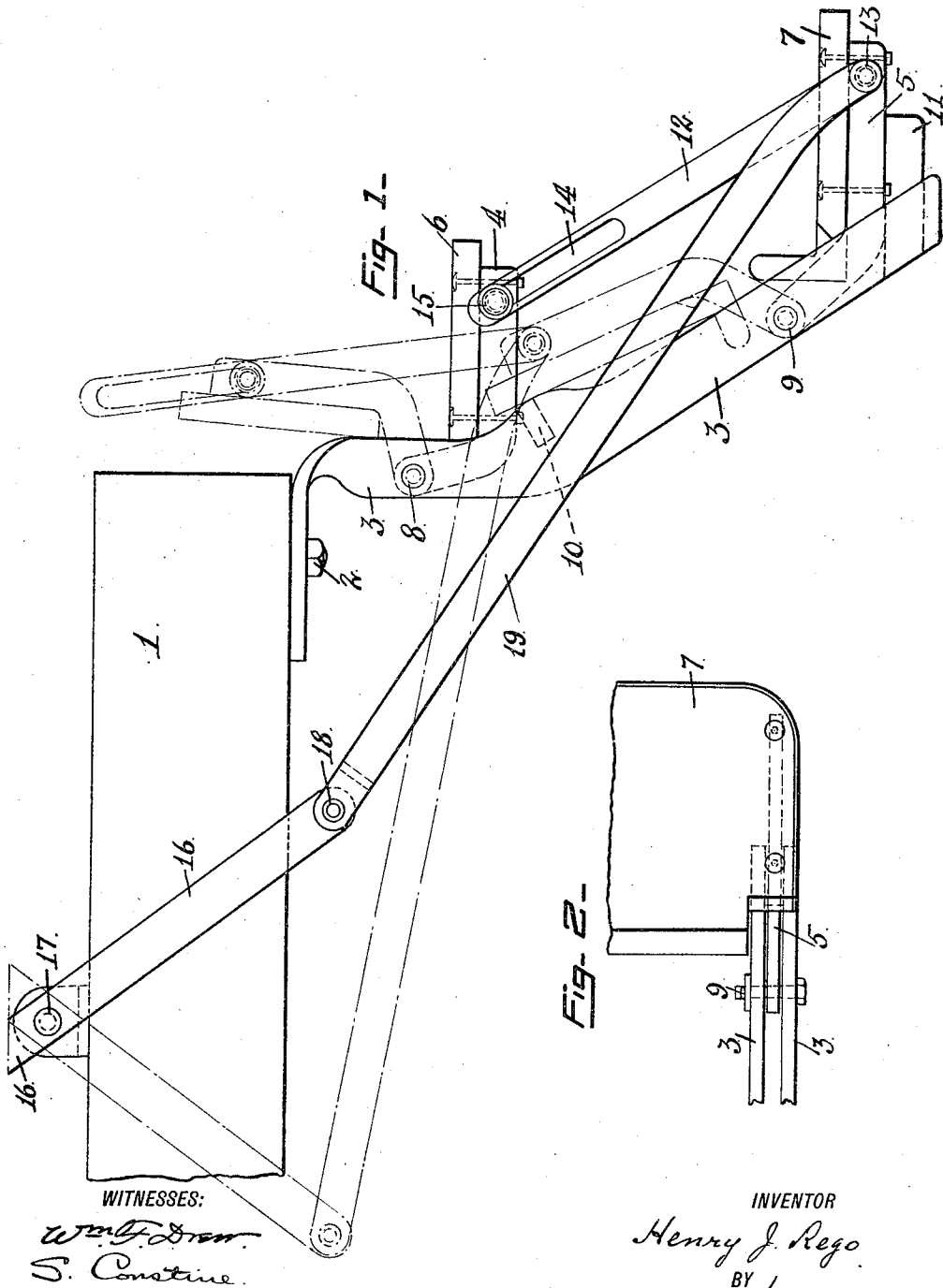


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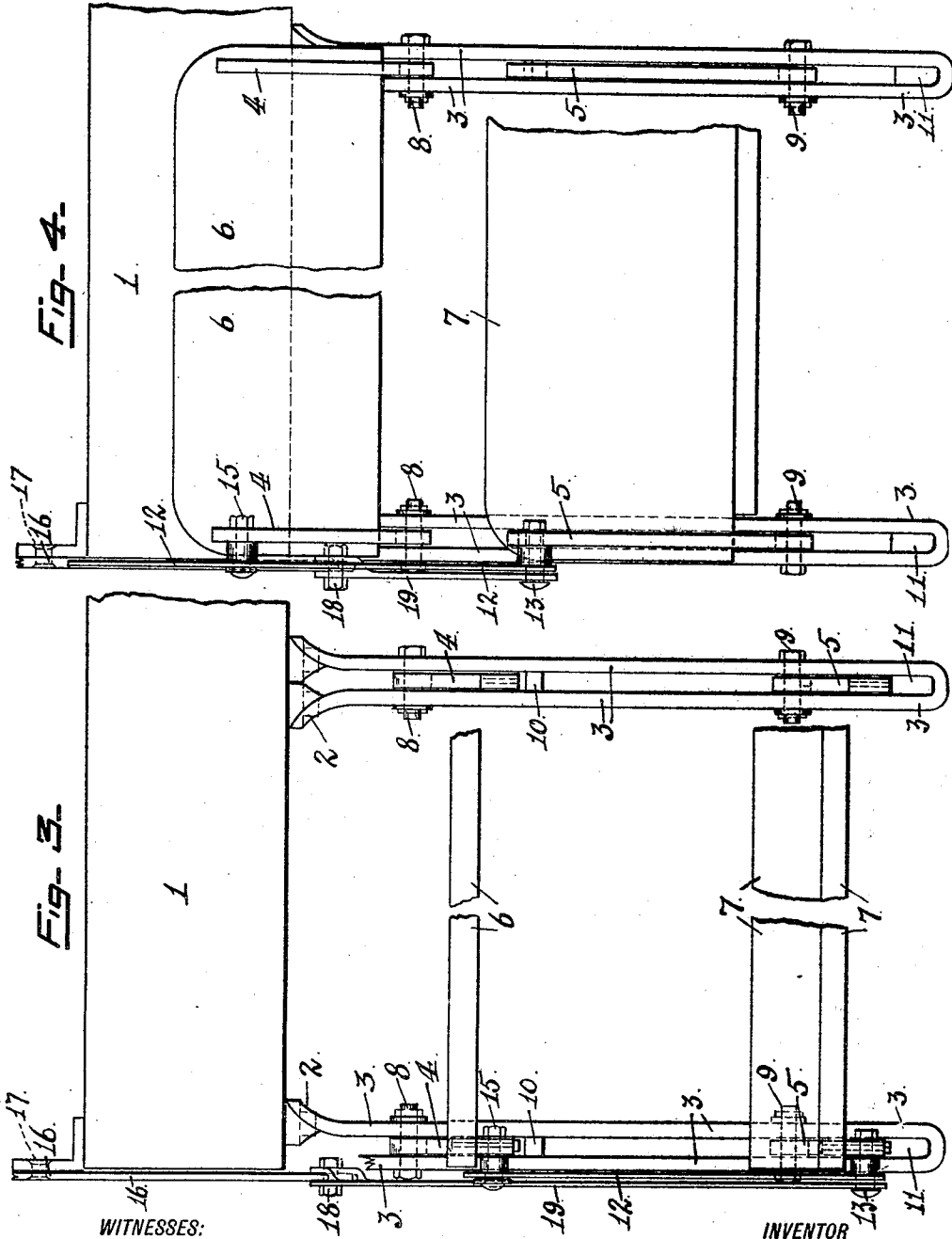
Patented May 11, 1915.
2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY J. REGO, OF SAN JOSE, CALIFORNIA.

FOLDING DOUBLE CAR-STEP.

1,138,975.

Specification of Letters Patent.

Patented May 11, 1915.

Application filed January 25, 1915. Serial No. 4,303.

To all whom it may concern:

Be it known that I, HENRY J. REGO, a citizen of the United States, residing at San Jose, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Folding Double Car-Steps, of which the following is a specification.

My invention relates to the class of folding car-steps, and it consists in the novel construction and arrangement of the double step and its operating connections which I shall hereinafter fully describe. Steps of this class are, by reason of their folding, well adapted for one-man cars, in that they may be so directly manipulated by the single operator as to afford access to the car only at his will; and, by being double, said steps are particularly adapted for cars which are raised relatively high from the ground, as they furnish a low step, making it easy for passengers to get on and off the car.

The object of my invention is to provide an effective double-step adapted by the operation of simple mechanism to be readily dropped for use and lifted again to inoperative position.

Referring to the accompanying drawings Figure 1 is an end elevation of my car-step and its operative mechanism, the dotted lines showing the closed or inoperative position. Fig. 2 is a detail, in plan, of one end of the lower step. Fig. 3 is a front elevation of my car-step showing it dropped for use. Fig. 4 is a front elevation of the same showing the step lifted out of use.

1 is the car platform. To this platform are bolted at 2, the hangers 3. These hangers are best arranged in pairs or bent double as shown, one pair being at each end of the steps. The members of each pair are parallel and spaced apart sufficiently to form rigid guides between which are pivoted the inner ends of the step supporting arms. There are two sets of arms, the upper ones being designated by 4, and the lower ones by 5. The former carry the upper step 6 and the latter carry the lower step 7, one arm being near each end of each step. The upper step arms 4 are pivoted at 8 between their spaced hanger pairs 3 and the lower step arms 5 are pivoted in their hangers at 9. Secured to the hangers are the fixed steps 10 for the upper step-arms and the fixed steps 11 for the lower step-arms. These limit the downward movement of the arms and

support the steps in horizontal position for use. The upper and lower step-arms, at one end of the steps, are connected by a link 12. At its lower end the link is pivoted on a pin 13, secured in the lower step arm, but at its upper end said link has an elongated slot 14 which plays over a pin 15 in the upper step-arm.

16 is the operating lever. This is pivoted at 17 to a bearing on the car platform, and its lower end is pivoted at 18 to a link 19, the lower end of which is pivoted on the pin 13 of the lower step-arm.

The relative positions, shapes and dimensions of the several parts are such that in moving from the positions shown in Fig. 1, by the full lines, in which the steps are dropped for use, to the positions shown in dotted lines, in which the steps are folded up out of use, it will be seen that the lower step first rises about its pivotal centers 9, carrying the link 12 upward, the slot 14 of said link playing freely over the pin 15 of the upper step; but when the bottom of the slot 14 reaches the pin 15, the link 12 picks up the upper step and both steps then travel upward to a position of rest.

I claim:—

1. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connected at its lower end with an arm of the lower step, said link having in its upper end a slot adapted for limited play upon a pin in an arm of the upper step; and means applied to the arm of the lower step for swinging both steps about the pivotal connection of their arms.

2. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connected at its lower end with an arm of the lower step, said link having in its upper end a slot adapted for limited play upon a pin in an arm of the upper step; an operating lever pivotally mounted on the car; and a link connecting said lever with the arm of the lower step, to swing both steps about the pivotal connections of their arms.

3. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a

link pivotally connecting the carrying arms of the two steps; means applied to one of said step-carrying arms for swinging the connected steps about the pivotal connections of their arms; and fixed stops carried by the hangers to limit the downward swing of the step-carrying arms and to support their steps in operative position.

4. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connected at its lower end with an arm of the lower step, said link having in its upper end a slot adapted for limited play upon a pin in an arm of the upper step; means applied to the arm of the lower step for swinging both steps about the pivotal connection of their arms; and fixed stops carried by the hangers to limit the downward swing of the step-carrying arms and to support their steps in operative position.

5. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connecting the carrying arms of the two steps; an operating lever pivotally mounted on the car; a link connecting said lever with one of said step carrying

arms, to swing the connected steps about the pivotal connections of their arms; and fixed stops carried by the hangers to limit the downward swing of the step-carrying arms and to support their steps in operative position.

6. A folding double car-step comprising fixed hangers depending from the car; upper and lower steps; step-carrying arms pivotally connected with said hangers; a link pivotally connected at its lower end with an arm of the lower step, said link having in its upper end a slot adapted for limited play upon a pin in an arm of the upper step; an operating lever pivotally mounted on the car; a link connecting said lever with the arm of the lower step, to swing both steps about the pivotal connections of their arms; and fixed stops carried by the hangers to limit the downward swing of the step-carrying arms and to support their steps in operative position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY J. REGO.

Witnesses:

WM. F. BOOTH,
D. B. RICHARDS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."