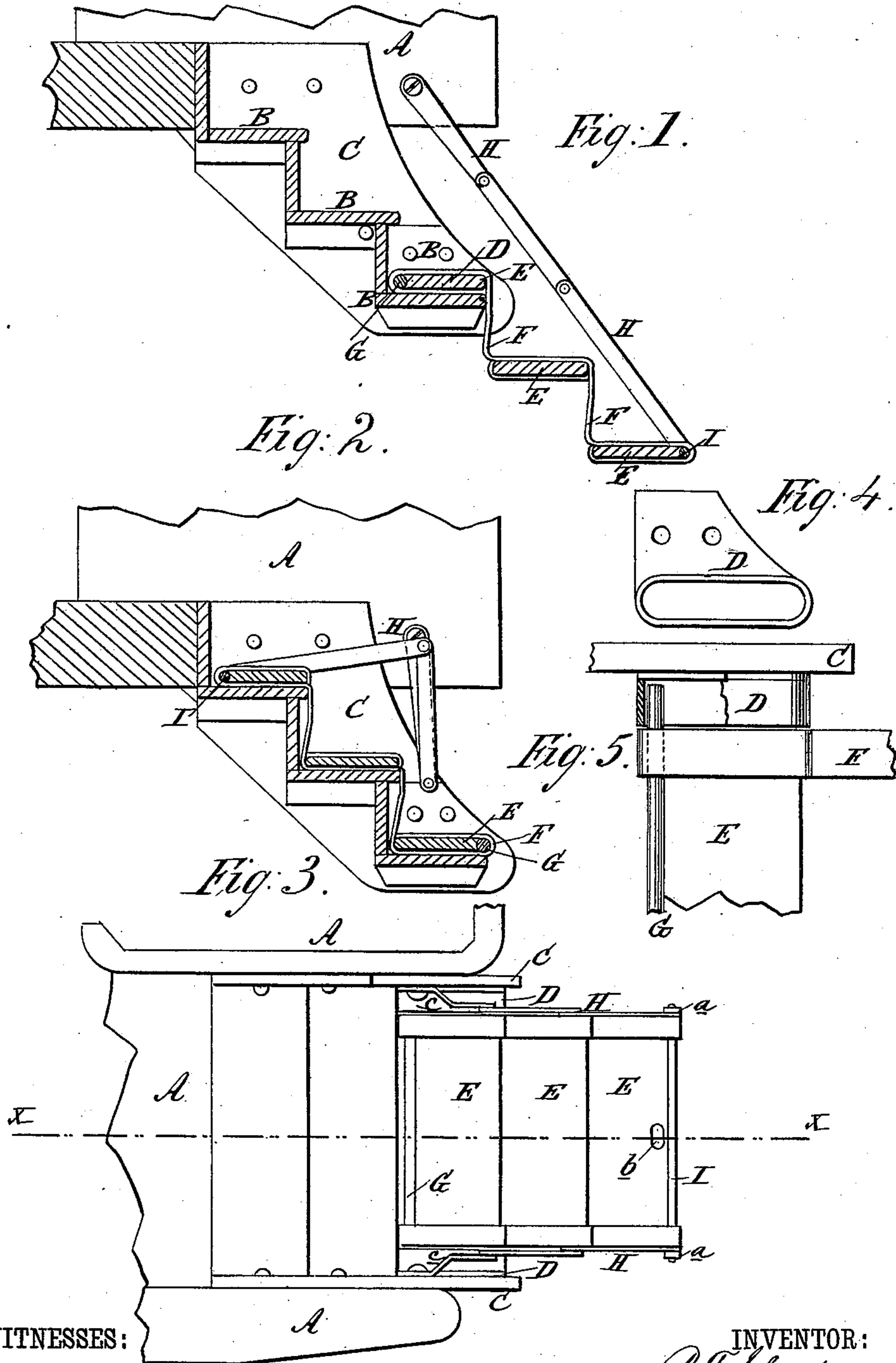


B. F. SHELABARGER.
Car-Step.

No. 227,310.

Patented May 4, 1880.



WITNESSES:

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BENJAMIN F. SHELABARGER, OF HANNIBAL, MISSOURI.

CAR-STEP.

SPECIFICATION forming part of Letters Patent No. 227,310, dated May 4, 1880.

Application filed March 1, 1880. (Model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. SHELABARGER, of Hannibal, in the county of Marion and State of Missouri, have invented a new and Improved Extension Car-Step, of which the following is a specification.

The object of this invention is to provide a simple device for extending the steps of passenger-cars, for the convenience of passengers getting in and out of the car, and for protecting at the same time the treads of the permanent steps from sparks, cinders, snow, &c., during the passage of the car from one station to another.

The invention consists of one or more steps held together by socketed end bands or strips, adjustably secured to the lower permanent car-step by pins that move in socketed side brackets, and supported in extended position by jointed side rails, which fold so as to allow the said extension-steps to be turned upward and over the permanent steps, so that when turned up they protect the said permanent steps and do not extend beyond them.

Figure 1 is a vertical sectional elevation of the permanent steps and extension-steps extended on line *x x*, Fig. 3. Fig. 2 is a vertical sectional side elevation, showing the extension-steps folded up. Fig. 3 is a plan of the car-steps with the extension-steps let down. Fig. 4 is an enlarged front elevation of the slotted bracket in which the extension-steps are secured. Fig. 5 is a plan of a portion of the upper extension-step, showing the manner in which the steps are secured to the car.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the end of a car. B B are the permanent steps, and C C the side carriages that support the steps in the usual manner.

D D are the socketed brackets, that are secured against the sides of the carriages C C at the ends of the lower permanent steps, B B.

E E are the extension-steps, held together by the socketed end bars, F, into the sockets of which bars F the ends of the steps E are secured.

The upper extension-step, E, has a rod, G, running along its inner edge, and the ends of

this rod G extend to the socketed brackets D, and thereby hold the said extension-steps in position.

H H are the jointed side rails, the upper ends of which are secured to the end of the car or car-platform at either side of the permanent steps B B, while the lower ends of the lower joints of the rails H H are secured to the ends of the lower extension-step by means of a rod, I, that passes along the front edge of the lower extension-step and has nuts *a a* on its ends. This lower extension-step has a hand-hole, *b*, in its tread, for the convenience of the operator to fold up or extend said steps. The upper joint of the side rails, H, are offset, as shown at *c*, so that when the extension-steps are folded up the other joints of the said rail H may be folded inside of the said first joint, as shown.

Metallic vertical iron strips may be fixed on the riser of the second permanent step, to serve as chafing-irons, against which the ends of the socket-bars F may move as the extension-steps are adjusted.

The advantage of these extension-steps for enabling passengers to get in and out of the cars more conveniently is obvious. These steps can be let down on reaching the station, and are to be turned up, as shown in Fig. 2, on leaving the station, so that between stations their treads are protected, and they in turn protect the treads of the permanent steps from the sparks, cinders, snow, or rain, that often cause discomfort and accidents.

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

1. The combination, with permanent steps B B of a car, of the extension-steps E E, socketed side bars, F, rods G I, jointed side rails, H H, and socketed brackets D, substantially as herein shown and described.

2. The combination, with the steps E E, of the socketed side bars, F, rod G, and socketed brackets D D, substantially as herein shown and described.

BENJAMIN F. SHELABARGER.

Witnesses:

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