

No. 724,753.

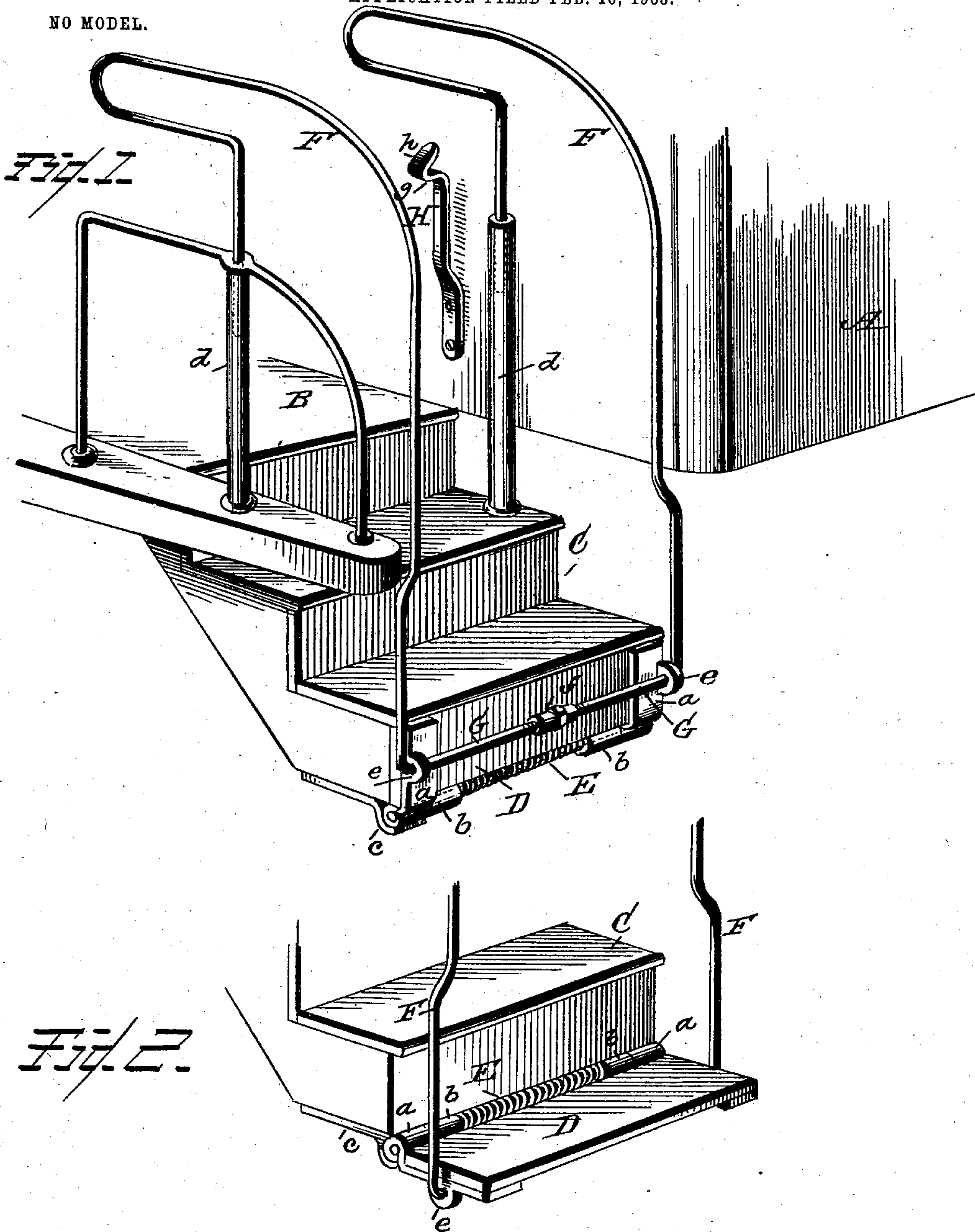
PATENTED APR. 7, 1903.

G. F. STANSBURY.

FOLDING STEP FOR CARS OR OTHER VEHICLES.

APPLICATION FILED FEB. 10, 1903.

NO MODEL.



Witnesses

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# UNITED STATES PATENT OFFICE

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## FOLDING STEP FOR CARS OR OTHER VEHICLES.

SPECIFICATION forming part of Letters Patent No. 724,753, dated April 7, 1903.

Application filed February 10, 1903. Serial No. 142,741. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE FRANCIS STANSBURY, a citizen of the United States, residing at Weedsport, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Folding Steps for Cars or other Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a car or other vehicle with a supplemental step, the same being connected to the ordinary steps of the vehicle and forming an additional step thereto when extended for use and folded against the lower one of the ordinary steps when not in use.

It is the purpose of the invention to provide a spring-actuated folding step that may be operated to bring the step in an extended position through the medium of the hand-rails of the car or other vehicle; and it consists in the means substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a perspective view showing my invention applied to a car, the spring-actuated supplemental step being shown as folded up against the ordinary step of the vehicle when not required for use; Fig. 2, a perspective view showing the supplemental step connected to the ordinary step and in an extended position for use.

In the accompanying drawings, A represents a portion of the end of a car, B the platform, and C the steps thereof, which may be of any suitable number and of the ordinary construction.

To the lower one of the steps C is connected the auxiliary step D, which may be of any desirable form and construction and adapted to fold up against the front side of the lower one of the steps when not in use, as shown in Fig. 1 of the drawings. This auxiliary step D is spring-actuated—that is to say, it will close up against the lower one of the ordinary steps automatically when released by the means hereinafter described—and therefore I term the step “spring-actuated,” as through

the medium of the spring E it will return to its normal position. (Shown in Fig. 1 of the drawings.)

The supplemental or auxiliary step D may be pivoted or hinged to the lower one of the ordinary steps C in any well-known and preferred manner, although in the present instance I have shown the common strap-hinges, comprising the leaves *a b* of the hinge, connected, respectively, to the auxiliary step and to the under side of the ordinary step, respectively, the leaves *a* of the hinge being supported by suitable brackets *c*, connected to the under side of the ordinary step. This is one of many means that may be employed for providing a pivoted or hinged connection between the two steps, and therefore I desire it understood that any desirable means as a substitute for the means shown may be resorted to without affecting the essential features of the invention.

Suitable hand-rails F, extending upon either side of the ordinary steps C, connect with the spring-actuated step D, the upper ends of the guide-rails, or the extremity of the rod forming said rails engage a stationary and tubular guide *d*. The lower ends of the rods forming the hand-rails extend through eyes *e*, projecting from the under side of the auxiliary step D, and have inwardly-extending rods G, which may be suitably connected to the ends of the hand-rails. It is the purpose of the invention to construct the hand-rails of tubular rods of any preferred size and of either brass, iron, or any other suitable material desired, thereby decreasing the weight of the hand-rails and rendering them more desirable for the purpose. The rods G, which form the horizontal extensions to the hand-rails F, are preferably solid and connected to the tubular rods by having their ends inserted therein and afterward secured thereto in any desirable manner, thereby forming a continuous rod. When passing down the steps of the car or other vehicle, the weight and pressure upon the hand-rails will cause them to be depressed, and one of the rails, preferably that one nearest the end of the car, will engage a spring-latch H, secured to the end of the car. Thereby the rails will be held depressed and the aux-



iliary step extended, as shown in Fig. 2 of the drawings. When the auxiliary step is through being used, the latch is pressed inward, which will release the hand-rail, and through the action of the spring E the step D will resume its normal position against the front side of the lower one of the ordinary steps C, as shown in Fig. 1 of the drawings. The rods G have right and left screw-threads upon their respective ends, with which engage a turnbuckle *f*, thereby enabling the rods to be drawn in a direction toward their center and tightening the hand-rails with relation to the folding step, but allowing the step to turn freely upon the rods, as required.

I have shown one of many forms of spring-latches that may be used in connection with the hand-rails, the latch H being constructed of a flat strip of spring metal secured at its lower end to the end of the car or other stationary object, the upper end of the strip being bent outward to form an engaging shoulder *g* for the rail to extend under the same to hold it down, the extremity of metal strip forming a cam *h*. The rail as it comes in contact with the cam of the latch will force the spring inward, and the rail thereby engages the shoulder upon the latch, which action will hold the rails down or depressed and at the same time extend the auxiliary step to the position for use.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A folding auxiliary step for cars or other vehicles, and a movable hand-rail connecting therewith, whereby the step is brought into

position for use by the depressing of said hand-rail, substantially as and for the purpose set forth.

2. A folding auxiliary step for cars or other vehicles, a movable hand-rail connecting therewith, and a spring-latch for engaging the hand-rail to hold the rail depressed and the step in an extended position for use, substantially as and for the purpose specified.

3. A folding auxiliary step for cars or other vehicles, a movable hand-rail connecting with the step, and a spring-latch having a shoulder and cam upon its upper end for the rail to engage, substantially as and for the purpose described.

4. A spring-actuated folding auxiliary step for cars or other vehicles, a movable hand-rail connecting therewith, and a spring-latch for holding the rail down to retain the step in an extended position for use, substantially as and for the purpose set forth.

5. A spring-actuated folding step for cars or other vehicles, hand-rails connecting with the step and adapted to be depressed to bring the step in an extended position for use, inwardly-extending rods upon the hand-rails having right and left screw-threads, a turnbuckle engaging the screw-threaded ends of the rods, and a suitable spring-latch adapted to engage the hand-rail to hold it down, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE FRANCIS STANSBURY.

Witnesses:

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