

O. F. LAWSON.
EXTENSION STEP FOR RAILWAY CARS.
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1,032,916.

Patented July 16, 1912.

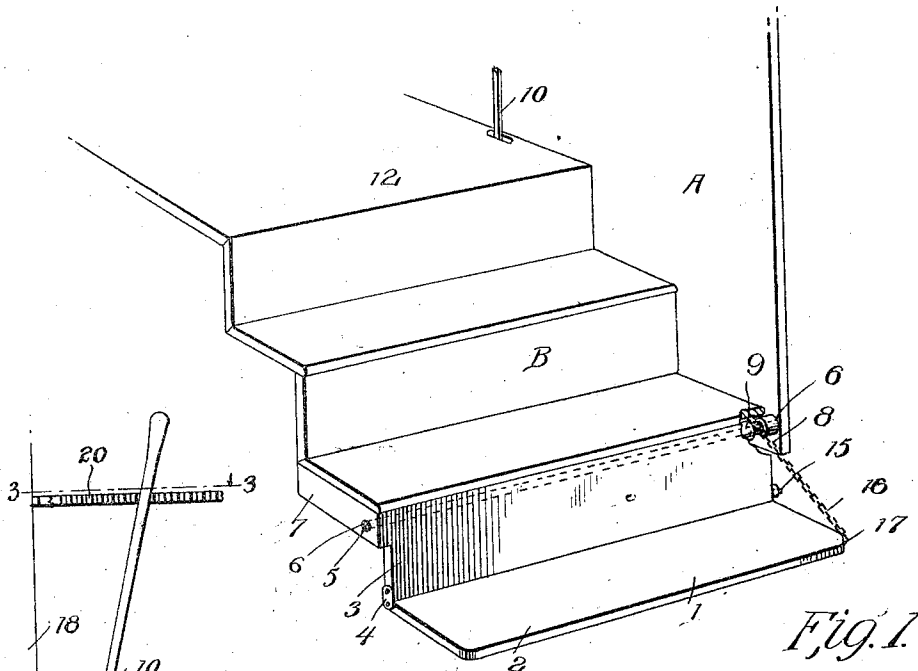


Fig. 2.

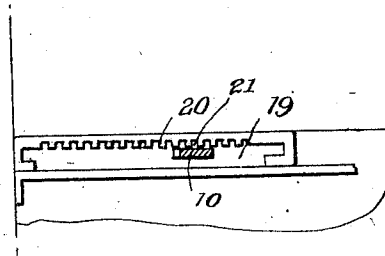


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

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EXTENSION-STEP FOR RAILWAY-CARS.

1,032,916.

Specification of Letters Patent.

Patented July 16, 1912.

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To all whom it may concern:

Be it known that I, OLOF F. LAWSON, a citizen of the United States, residing at New Sharon, in the county of Mahaska and State of Iowa, have invented new and useful Improvements in Extension-Steps for Railway-Cars, of which the following is a specification.

This invention relates to extension steps for railway cars, the object of the invention being to provide in conjunction with the usual fixed steps an extensible step which can be readily extended for use and arranged in close proximity with the ground or station platform so as to obviate the necessity of using a stool or the like when passengers are getting off or on the train.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a perspective view showing my extensible step applied to the usual permanent step of a car, the extensible step being shown in its extended or operative position. Fig. 2 is a section on line 2—2 of Fig. 1 showing the extensible step folded beneath the bottom permanent step of the car. Fig. 3 is a section on line 3—3 of Fig. 2.

For the purpose of illustration, a portion A of a car is shown in the drawing, the same being provided with the usual permanent steps B.

My improvement resides in the provision of an extensible step 1 which is disposed below the plane of the lowermost permanent step of the car. The extensible step embodies a main step member 2 and a riser 3, the latter being hingedly connected with the former by bracket plates 4 so to permit the members 2 and 3 to be folded on each other as shown in Fig. 2 of the drawing. The riser member 3 of the extensible step is mounted on a pivot bar or rod 5 which is mounted in suitable bearing passages 6 in the members 7 and 8 of the car. The riser 3 of the extensible step is spaced from the portion 8 of the car by a grooved roller 9. This roller is mounted on one end of the pivot bar 5.

A lever 10 is pivoted, at 11, to the platform 12 of the car, and as shown, the lower end of the lever is pivoted, at 13, to an actu-

ating rod 14, the outer end of the rod having pivotal connection with the stud 15 which extends outwardly from one end of the riser 3. A chain or similar flexible connection 16 is connected at one of its ends with the lever 10, the opposite end of the chain being extended over the guide roller 17 and being attached, at 18, to the section 2 of the extensible step. The upper end of the lever is preferably located in close proximity to the door 19 of the car and is slidable in a guide 20 which is suitably secured to the end of the car. This guide is provided with teeth 21 which are designed to engage the lever so as to hold the same in its adjusted position.

From the construction described it will be readily understood that the lever 10 is adapted for manual operation so as to obtain the two adjustments of the extensible step, it being understood that when the lever is moved in one direction the step may be extended to the operative position shown in Fig. 1 of the drawing, and when the lever is moved in an opposite direction the step sections 2 and 3 are folded one upon the other and disposed beneath the lowermost permanent car step.

When my improved step is in its extended position it will be disposed in such proximity with respect to the ground or station platform that will entirely obviate the necessity of providing the stool which is so commonly employed and used as a supplemental step when passengers are boarding or leaving the car. When the step is in its extended position the chain 16 will operate to hold the section 2 thereof securely in a horizontal position.

I claim:—

The combination with a permanent car step having a depending member at one side thereof, of an extensible step located beneath the permanent step and including a tread and a riser member, said members being pivotally connected with each other, a pivot rod supporting the riser member and having its extremities mounted in bearings in said depending member and car, respectively, a grooved roller supported by one end of the said pivot rod and disposed immediately below said permanent step, a controlling lever, a horizontally disposed actu-

ating rod connecting the lever and the riser member of the extensible step, and a flexible connection extending over the roller and having connection with the controlling lever
5 and with the tread member for the extensible step, substantially as and for the purpose specified.

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

OLOF F. LAWSON.

Witnesses:

K. C. THOMPSON,
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