

(No Model.)

2 Sheets—Sheet 1.

J. R. THOMAS.
CAR FENDER.

No. 566,879.

Patented Sept. 1, 1896.

FIG:1.

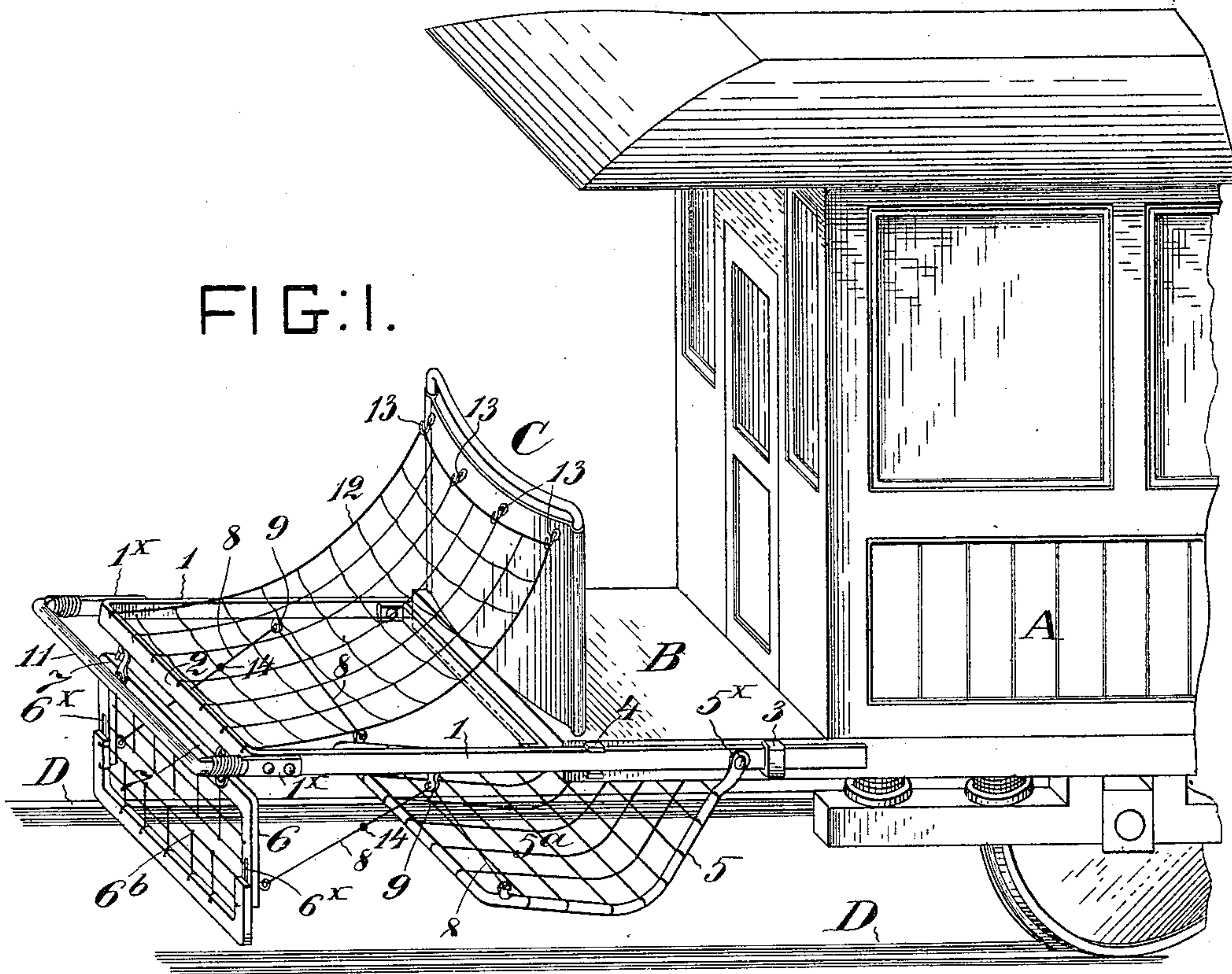
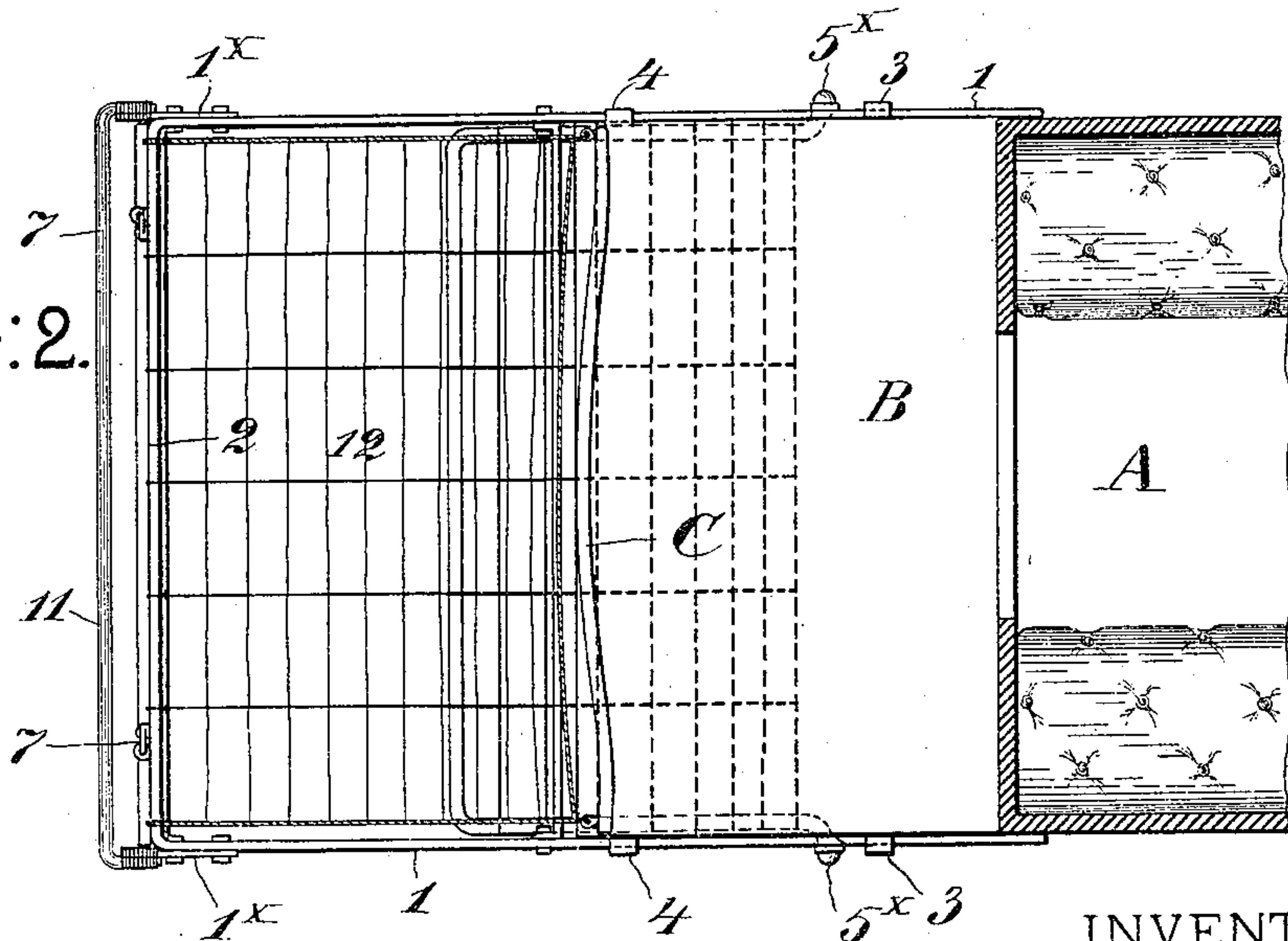


FIG:2.



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2 Sheets—Sheet 2.

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FIG:3.

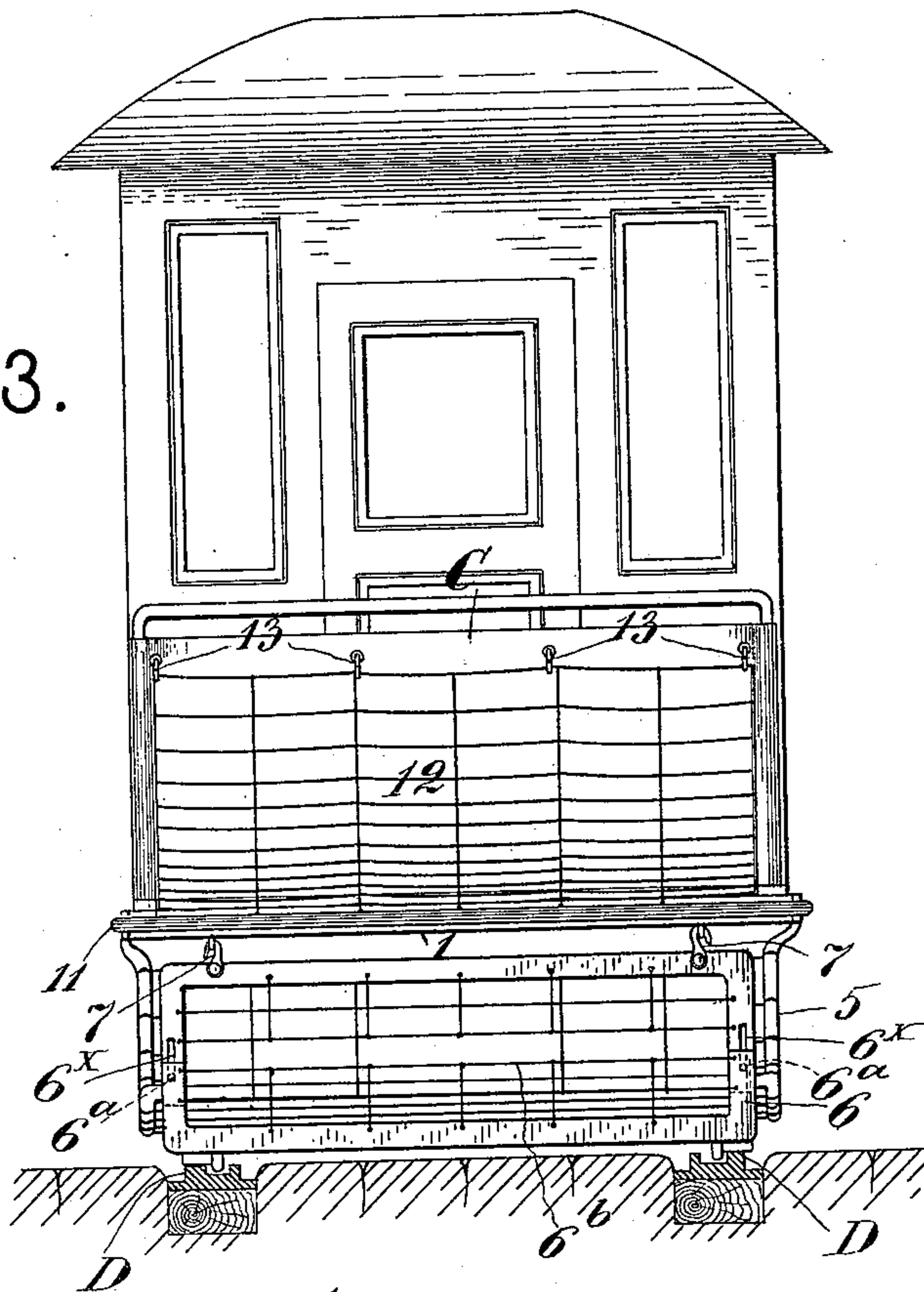


FIG:4.

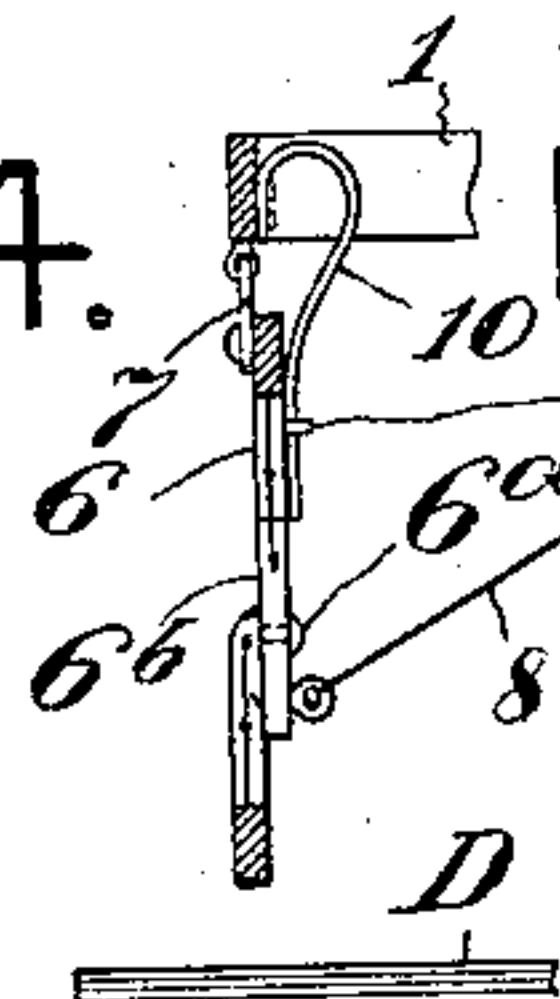
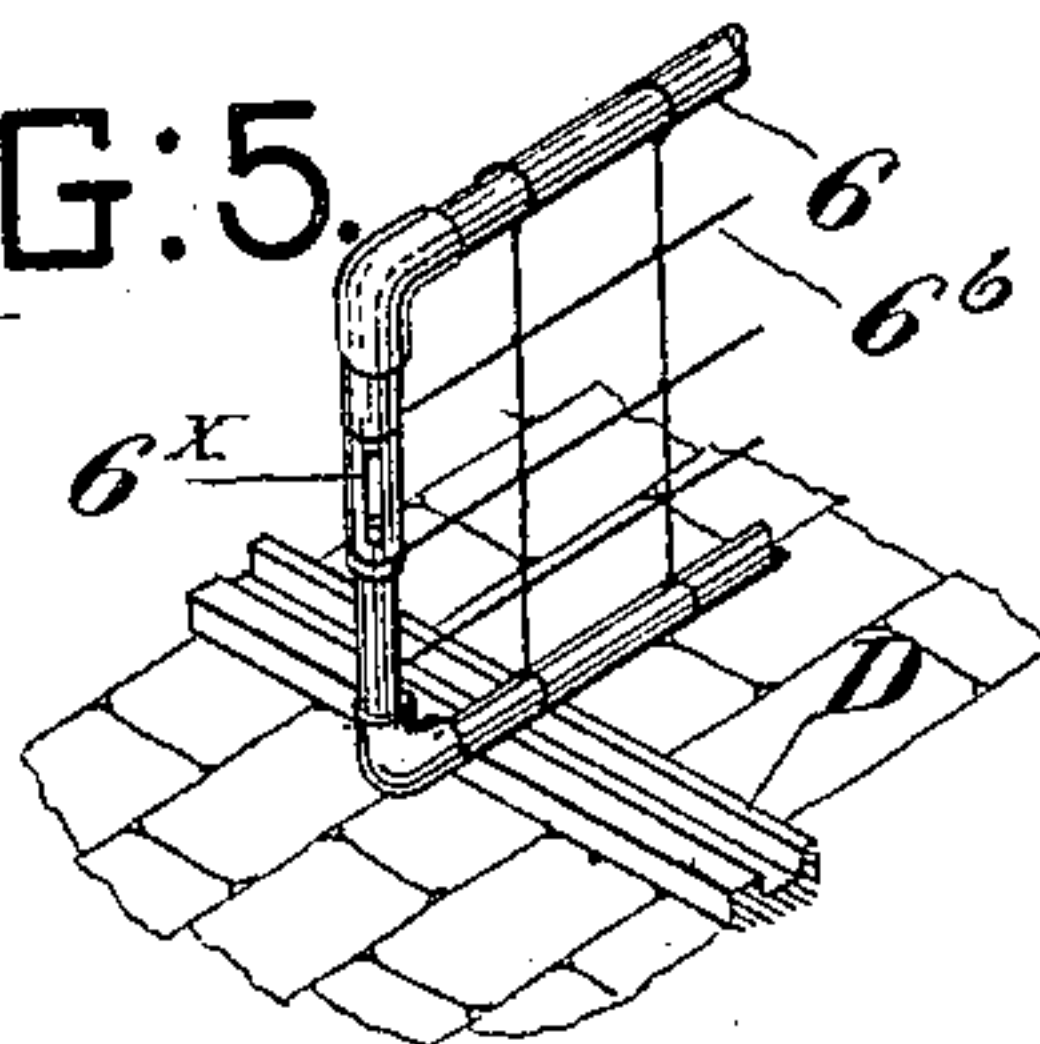


FIG:5.



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UNITED STATES PATENT OFFICE.

JAMES R. THOMAS, OF NEW YORK, N. Y.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 566,879, dated September 1, 1896.

Application filed November 25, 1895. Serial No. 570,001. (No model.)

To all whom it may concern:

Be it known that I, JAMES R. THOMAS, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification.

My invention relates to the class of devices of which one is to be carried on the front end of a car to pick up a person who may be struck by the car.

One object of this invention is to provide means for picking up a person who has fallen on the track, combined with means for protecting against injury to a person who may be struck while standing erect on the track. Means are also provided whereby some part of the fender will normally depend to within not more than two or three inches of the track or ground, and will yet permit the fender to be mounted on the car-body, which plays up and down on springs.

The accompanying drawings illustrate an embodiment of the invention, in which—

Figure 1 is a perspective view of the front end of a car at rest and provided with my invention. Fig. 2 is a plan of the car-platform and attached fender. Fig. 3 is a front elevation of the car and fender. Fig. 4 is a fragmentary detail view of a part of the fender, illustrating the application of a spring to the operating-pendant. Fig. 5 illustrates a modified construction of the same in which the frame of the pendant is made of telescoping tubes.

A represents the body of a car; B, the platform thereof; C, the dashboard thereof, and D the track-rails. These are common to all trolley, cable, and street cars and to the tracks they run on.

The fender is compound, in that one part of it is adapted to pick up a fallen person from the track and the other to take care of a person who may be struck while standing erect on the track.

A fender-frame is mounted removably on the car-frame, and on this frame are mounted the other parts of the fender. This fender-frame comprises two side bars 1, connected at their front ends by a tie-bar 2. The side-bars are secured to the car-frame so as to project out in front of the platform and dash-

board by means of keeper-eyes 3 in the car-frame, through which the bars are passed, and other keepers or supports 4 on the car-frame in front of the keepers 3.

As a means for taking up a person who has fallen on the track, a cradle 5 and an operating-pendant 6 are provided, both of which are hinged to the frame 1 2. The cradle consists of a bent frame of somewhat U form or shape in plan, with the rearwardly-extending side bars thereof curved upwardly and their ends pivotally attached at 5^x to the respective side bars 1. This frame, which may be made of gas-pipe, is covered with a netting 5^a, preferably of wire and coarse. The operating-pendant 6 is composed of two U-shaped sections arranged to overlap and form a rectangular frame, the one having in it slots 6^x, engaged by studs 6^a on the other, as best seen in Figs. 3 and 4, so that the frame may be compressed vertically and narrowed. This frame is covered by some suitable netting or fabric 6^b of sufficient flexibility to permit the frame to be compressed laterally, as above stated. The pendant 6 is suspended under the front bar 2 of the fender-frame by hooks 7 or the like, so that it will be perfectly free to swing to and fro, and it is connected to the cradle 5 by a cord, chain, or other flexible connector 8, which passes over a sheave or pulley 9 on the side bar 1 of the fender-frame. To properly support the cradle, there should be two connectors 8, one at each side of the car. The operating-pendant 6 may have sufficient weight to hold the front end of the cradle 5 elevated to the position seen in Fig. 1, so that it cannot strike the ground when the car-body moves up and down on its springs; but if it be not feasible to give sufficient weight to the pendant it may be backed by a spring or springs 10, as seen in Fig. 4. These springs may be arranged in any way desired, but, as here shown, they are leaf-springs, secured to the bar 2 above, and their lower ends made to play in keepers 10^x on the pendant. The pendant 6 is designed to extend down, normally, until its lower edge is not more than two or three inches above the ground or rails. Then if the car-body should play up and down on the springs and be depressed, so that the lower edge of the pendant strikes, the lower section

thereof will yield and slide up on the upper section and breakage will be obviated. Any construction of this pendant which will permit the same to swing to and fro lengthwise of the track and which provides a lower section to slide up and down on the other, so as to lessen the vertical width of the pendant, will come within my invention. Fig. 5 shows a construction of the pendant 6 wherein the frame-sections are tubular, the tube of one section telescoping with that of the other. In operation, the body of a person fallen on the track will be struck by the pendant 6 on an advancing car and this will swing the pendant back, thus permitting the cradle 5 to descend or drop at its free front or advancing edge and scoop up the body.

Should a person be standing on the track in the path of a car, he will be struck by a yielding buffer 11, which extends across the front end of the fender-frame in front of the bar 2. This buffer 11 consists of a piece of rubber hose, as good garden-hose, strained tightly lengthwise and secured firmly at its ends to projecting parts 1^x of the frame, as clearly shown in Fig. 2. Such a fender will produce no materially injurious effect on the person, even though the car be moving at considerable speed, and the person struck will be toppled over onto a loose soft netting 12, extending from the bar 2 back and up to the dashboard, where it may be secured by engagement with simple hooks 13. The netting 12 will be of rope, cord, or like fibrous material, by preference, so as to be light, cheap, and not likely to injure any one falling on it. Only one fender is needed for the car, as it may be readily removed by unhooking the netting 12 from the dashboard, drawing out the side bars 1, and shifting the whole device to the other end of the car, which will be provided with keepers 3 and 4 at both ends and hooks 13 on both dashboards. To prevent the cradle 5 from descending too low, a button 14 may be placed on the connector 8 to act as a stop at the sheave 9.

It will be noted that this fender is simple and inexpensive, being all carried by the two side bars 1, which are readily removable for shifting from one end of the car to the other. The cradle is connected with and operated by the pendant, and not merely tripped thereby so as to fall, and the pendant is made up of two sections free to slide on one another when its lower edge strikes the ground on the track-rails.

Having thus described my invention, I claim—

1. The combination with a car, of a compound fender mounted on the same and com-

prising a fender-frame projecting out in front of the dashboard at about the level of the car-platform and provided with a buffer at its front end and a netting between said buffer and the dashboard of the car, an operating-pendant suspended over the track from the front part of the fender-frame, a cradle suspended from said frame back of the pendant, and a flexible connector between said pendant and cradle, whereby the swinging of the pendant operates the cradle to raise or lower it, substantially as set forth.

2. The combination to form a compound fender for a car, of a fender-frame 1, 1, 2, a buffer at the front end of said frame, a netting 12, secured to and arranged over the front end of said frame, an operating-pendant hinged to the front end of said frame, a cradle 5, hinged to the rear part of said frame, and flexible connectors which connect the operating-pendant with said cradle, substantially as set forth.

3. The combination with a car, of the fender-frame, mounted on the car-body and projecting out in front of the dashboard, of the cradle suspended on pivots from said frame at its rear end and situated under the car-platform, the operating-pendant suspended loosely from the front part of said frame and in front of the cradle, said pendant being composed of an upper and lower section adapted to slide on each other as set forth, and a flexible connector or connectors which connect said cradle and pendant and take over sheaves or bearings on the fender-frame as set forth, whereby when the pendant is swung backward the cradle is permitted to descend by gravity, as specified.

4. The combination with a car having keepers on the frame of its body, of a fender-frame comprising straight side bars 1, adapted to fit removably in said keepers and projecting forward on substantially the same level as the platform of the car, a tie-bar 2 at its front end and a buffer in front of the tie-bar 2, a netting 12, on said frame, an operating-pendant suspended from said frame, and a cradle, under the car-platform connected with and operated by said pendant for picking up a person who has fallen on the track, said cradle being hinged to said frame, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES R. THOMAS.

Witnesses:

DONALD M. REEDER,
HAROLD H. REEDER.