

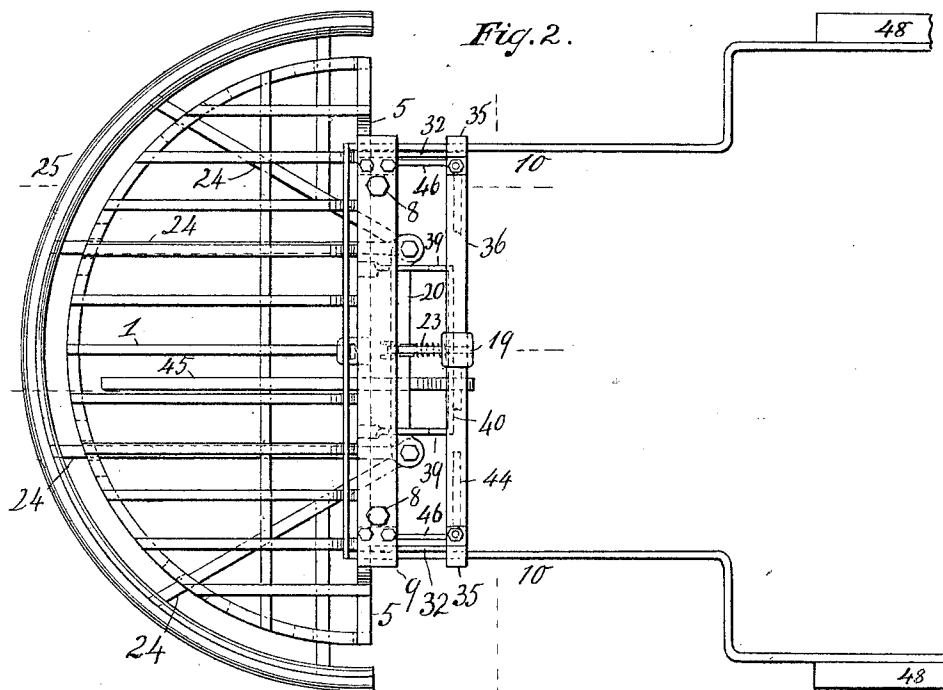
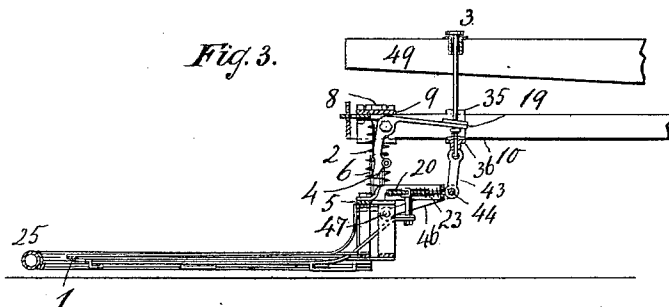
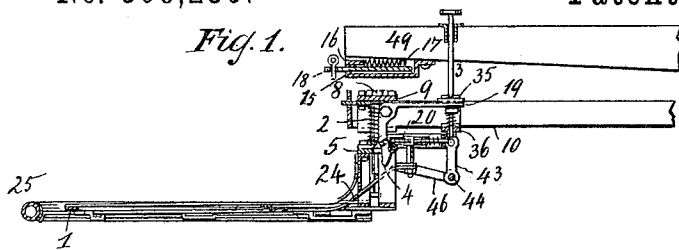
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2 Sheets—Sheet 1.

C. N. WASHBURN & J. V. R. FERRIS.
CAR FENDER.

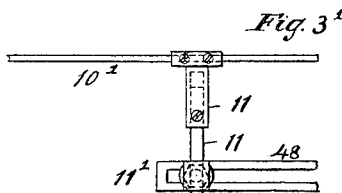
No. 566,256.

Patented Aug. 18, 1896.



WITNESSES:

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Chas. E. Fensger



INVENTORS:

Charles N. Washburn.
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ATTORNEYS

(No Model.)

2 Sheets—Sheet 2.

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Fig. 5.

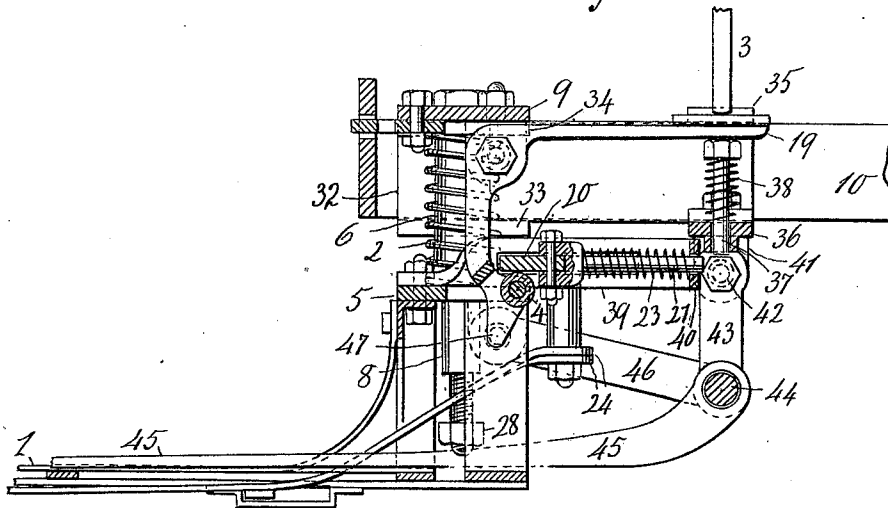


Fig. 6.

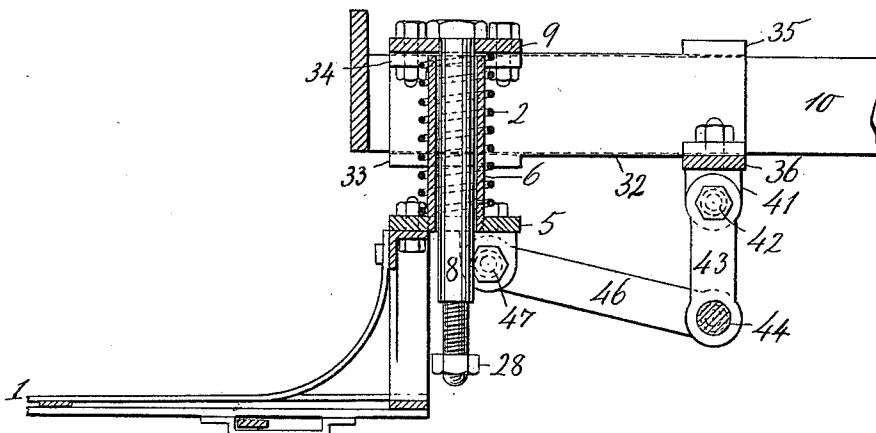
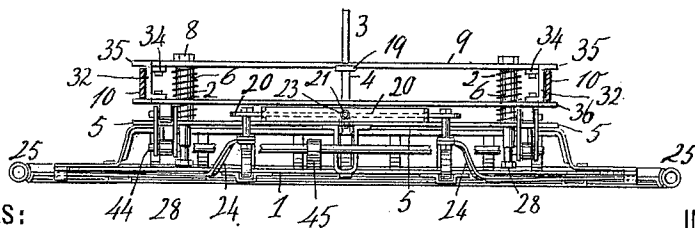


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES N. WASHBURN AND JAMES V. R. FERRIS, OF BROOKLYN, NEW YORK; SAID WASHBURN ASSIGNOR TO SAID FERRIS.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 566,256, dated August 18, 1896.

Application filed November 8, 1895. Serial No. 568,301. (No model.)

To all whom it may concern:

Be it known that we, CHARLES N. WASHBURN and JAMES V. R. FERRIS, citizens of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Car-Fenders, of which the following is a specification.

The object of this invention is to effect certain improvements in car-fenders; and to this end the invention resides in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a sectional side elevation of a fender raised. Fig. 2 is a plan view of Fig. 1. Fig. 3 is a view like Fig. 1, the fender being depressed. Fig. 3' shows a modification. Fig. 4 is a rear elevation of the fender. Figs. 5 and 6 are detail sectional side views of the fender.

The fender 1 is subjected to the action of springs 2, tending to force the fender toward the ground. The fender can be held up against the action of the springs by means of a catch or detent 4, (one or more.) This catch or detent 4 can be released by a treadle 3, and is also automatically released by the fender striking an object, as presently explained. The fender 1 is carried by a cross-head 5, from which extend tubular risers 6. These risers 6 are guided, when moving up and down with the fender 1, by rods or guides 8, carried by plate 9. The springs 2 are braced against the plate 9 and cross-head 5. The plate 9 can be slipped back under the car along guides or rods 10, so that the fender can be moved back when the car is laid up or when the fender is not to be used.

The treadle 3 presses upon the tail or arm 19 of catch 4, said tail 19 and catch 4 appearing as a bell-crank lever. The depression of treadle 3 moves the catch 4 out of engagement with the lip 20, after which the springs can depress the fender to, or close to, the ground. This lip 20 is slidable and is normally pressed forward by spring 23, coiled about stem 21. From this lip 20 extend arms or connections 24 to a striking-bar or front rail 25, slidably supported on fender 1. Should the treadle 3 not be actuated in time to free the fender for

depression before striking an object, the contact of rail or contactor 25 with the object will slide or push back said rail with lip 20 against the action of spring 23, so as to move lip 20 out of engagement with catch 4 and allow the fender to be depressed before the object struck by the fender has time to roll or pass under the latter.

The rail 25, when padded or covered with rubber or soft material, will strike a somewhat soft or yielding blow, and the blow is further softened by the receding movement of said rail 25.

If it is desirable that the fender should not be depressed by the springs 2 into actual contact with the ground or the rails, but sufficiently far down to prevent an object passing under the fender, the nuts 28 on rods 8 are adjusted to arrest or regulate the extent of the downward motion of the fender.

The fender, after having been depressed, can be raised, when desired, in any suitable well-known way, such as lifting by hand or by any suitable lever, rod, chain, or other appliance.

The plate 9, resting on the rods 10, is connected by flanges 34 to short pieces 32, to which is bolted or connected the plate or flanges 33, Fig. 5, and the pieces 32, Figs. 2 and 4, connect the plate 9 with the flanges 35, resting on rods 10. Said pieces 32 also have secured thereto the plate or bar 36.

The various parts 9, 32, 33, 34, 35, and 36 form a frame or slide adapted to be set or slid with the fender back or forward along the guides 10 and to be suitably secured in the front or working position of the fender.

The plunger 37, under the action of the spring 38, normally tends to hold the tail 19 in position to keep catch 4 in engagement until the action of treadle 3 releases said catch.

Carried by the cross-head 5 is a frame comprising the side pieces 39 and rear piece 40, Figs. 2 and 5. The motion of the lip 20 is limited by said lip being extended into slots in the side pieces 39, and the lip-actuating spring 23 is braced against said rear piece 40, the stem 21 being guided by or extending through an eye in said rear piece 40. This stem 21 is connected to the lip 20 and moves

backward with said lip when the striking portion 25 receives an impact.

A lever arrangement for raising the fender from depressed position can be provided as follows: From plate or bar 36 depend hang-
5 ers 41, to which at 42 is jointed a link or links 43, carrying a fulcrum 44 for lever 45 46. The lever-arm 46 is connected or jointed at 47 to a suitable part of the fender 1 or of the
10 cross-head 5. The lever-arm 45, extending along the fender 1, is in convenient position to be grasped and raised for swinging up lever-arm 46 to raise the fender. The lever-arm 45 can be operated, if desired, from the
15 car-platform, as by a suitable chain or hook or other grasping device.

The sills or platform-beams are indicated at 49. The treadle 3 passes loosely through a bushing or perforation in the platform and
20 rests loosely on the tail 19 of the catch or detent 4, so as not to have its touch or engagement with the tail 19 affected when the platform, with the car-body, oscillates or vibrates above the truck attachments 10.

The fender 1 has its under face placed in horizontal position or parallel to the ground or track, and the guides 6 and 8 for the
25 fender being vertical or rectilinear allow the fender to move toward the ground, while said fender maintains said under face in horizontal
30 position. The fender thus depressed, as seen in Fig. 3, will prevent an object rolling laterally under the fender, as well as from rolling under the fender from the front or
35 from ahead.

If for any reason it is found desirable to do so, the supports 10 can be attached to the car-body instead of to the truck.

At times if, for example, the fender is sufficiently heavy the springs 2 can be omitted
40 and the fender allowed to descend by its own weight.

The plates 15 and 16 form guides for a link or draw-bar, the pin 17 preventing said draw-
45 bar from being drawn too far out or out of place, but said draw-bar being free to be shoved back out of the way when not in use. A relieving-spring may be applied to the
50 draft-bar to ease the jerk or motion of starting the car.

The supports 10, if carried by the truck 48, will not vibrate or oscillate with the car-body. These supports can be connected directly to the car-truck, as in Fig. 3, or ad-
55 justably connected, as shown in Fig. 3', where carriers 11 and 11' are shown for a support 10'. The carriers 11, if extensible or telescopic and laterally adjustable in the carriers 11', enable the carriers 10' to be adjusted closer
60 together or farther apart to obtain the desired width or parallel alinement, and the carriers 11', if vertically adjustable in trucks 48, enable the desired adjustment as regards height to be obtained. By making carriers
65 10' forwardly and backwardly adjustable in carriers 11 the forward projection of the fender can be regulated. If there should not

be room for connecting to the trucks, the fender might be carried by the car-body, but the support of the fender by the trucks avoids 70 oscillation of the fender, as noticed.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a car-fender, and supports upon which the fender is movable, 75 of springs for moving the fender toward the ground, and a detent composed of a spring-pressed bell-crank lever having one of its arms hooked and directly engaging a part of the fender, and its other arm loosely sup- 80 porting an actuating treadle or pin, said detent serving to hold the fender against the action of the springs, and said fender, together with the detent, being movable backward and forward, or toward and from the 85 front or active position of the fender while the actuating treadle or pin remains stationary, substantially as described.

2. The combination with a car-fender having its under face arranged in a horizontal 90 position, or parallel to the track, of vertical or rectilinear guides for permitting the fender to move toward the surface traversed while said fender maintains its under face in a horizontal position, and supports for the 95 guides, said guides with the fender being movable longitudinally toward and from the front or active position of the fender, substantially as described.

3. The combination with a fender having 100 its under face arranged in a horizontal position, or parallel to the track, of vertical or rectilinear guides for permitting the fender to move toward the surface traversed while said fender maintains its under face in a 105 horizontal position, supports for the guides, a detent, one or more, for holding the fender from the surface traversed, and a treadle for releasing the detent, said guides being made movable with the fender longitudinally to 110 and from the front or operative position, substantially as described.

4. A fender having its under face placed in a horizontal position, or parallel to the track, combined with vertical or rectilinear guides 115 for permitting the fender to move toward the surface traversed while said fender maintains said under face in a horizontal position, supports for the guides, a detent, one or more, for holding the fender from the surface traversed, and a treadle for releasing the detent, 120 said fender with the guides being movable or adjustable longitudinally to and from the front or operative position of the fender, and said treadle being made to rest loosely on the 125 said detent, substantially as described.

5. A fender movable toward the ground and having a spring-pressed lip, combined with a catch made to engage the lip for holding the fender raised, said fender having a movable 130 striking part, and arms or connections made to extend from the striking part to the lip so that when the striking part is in contact it moves the lip to releasing position against

the action of the spring substantially as described.

6. A car-fender combined with springs for moving the fender toward the ground, a detent for holding the fender against the action of the springs, supports for said fender, and laterally and vertically adjustable carriers made to connect the supports to the car-truck substantially as described.

10 7. A car-fender, combined with springs for moving the fender toward the ground, a detent for holding the fender against the action of the springs, a lever for raising said fender, said lever with said fender being movable
15 longitudinally to and from the front or operative position of the latter, and supports upon which the fender moves, substantially as described.

20 8. A car-fender adapted to move toward the ground, combined with supports upon which the fender moves, a detent for holding the fender raised, a lifting-lever for said fender fulcrumed back of the fender and having its lifting-arm connected to the fender and its

handle or operating-arm extending forward 25 to rest on the fender, said lever with the fender being movable longitudinally to and from the front or operative position of the latter, substantially as described.

9. A car-fender adapted to move toward the ground, combined with a detent for holding the fender raised, a lifter or elevating-handle located above and made to extend horizontally over the fender for raising the latter into engagement with the detent, said handle with the fender being movable longitudinally to and from the front or operative position of the latter, and supports upon which the fender moves, substantially as described. 30 35

In testimony whereof we have hereunto set 40 our hands in the presence of two subscribing witnesses.

CHARLES N. WASHBURN.
JAMES V. R. FERRIS.

Witnesses:

W. C. HAUFF,
E. F. KASTENHUBER.