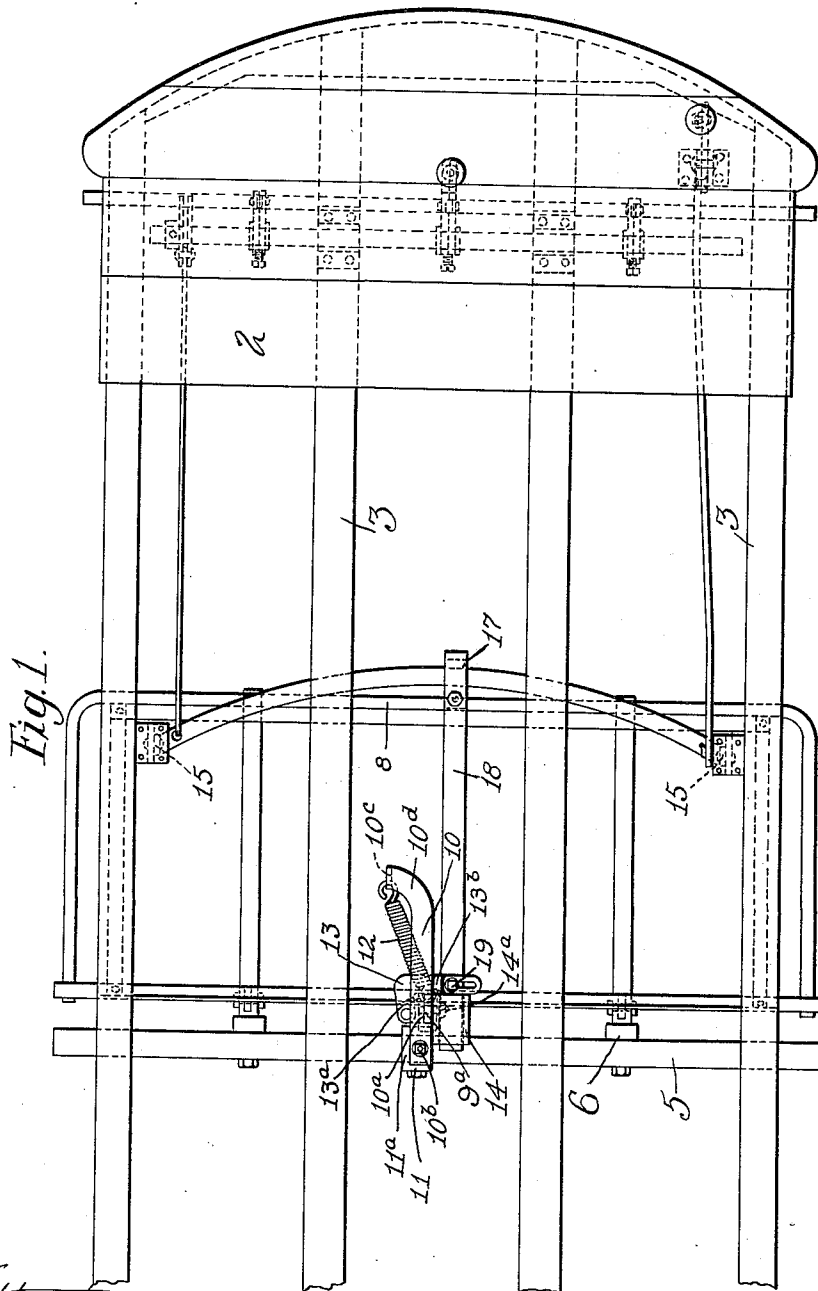


G. A. PARMENTER.
LIFE GUARD OR FENDER FOR RAILWAY CARS.
APPLICATION FILED JUNE 24, 1911.

1,007,600.

Patented Oct. 31, 1911.
2 SHEETS—SHEET 1.



Attest:
Bent, M. Stahl
Chas. F. Calhoun.

By

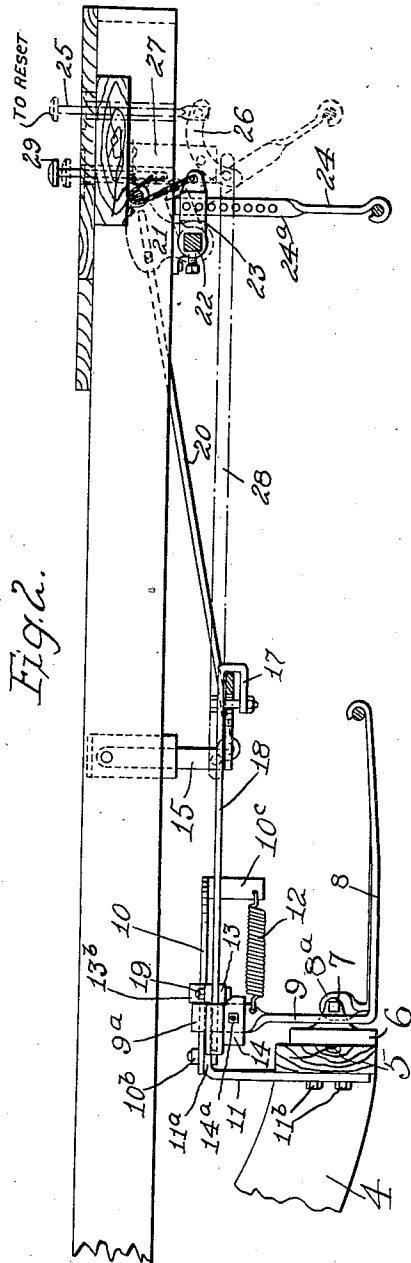
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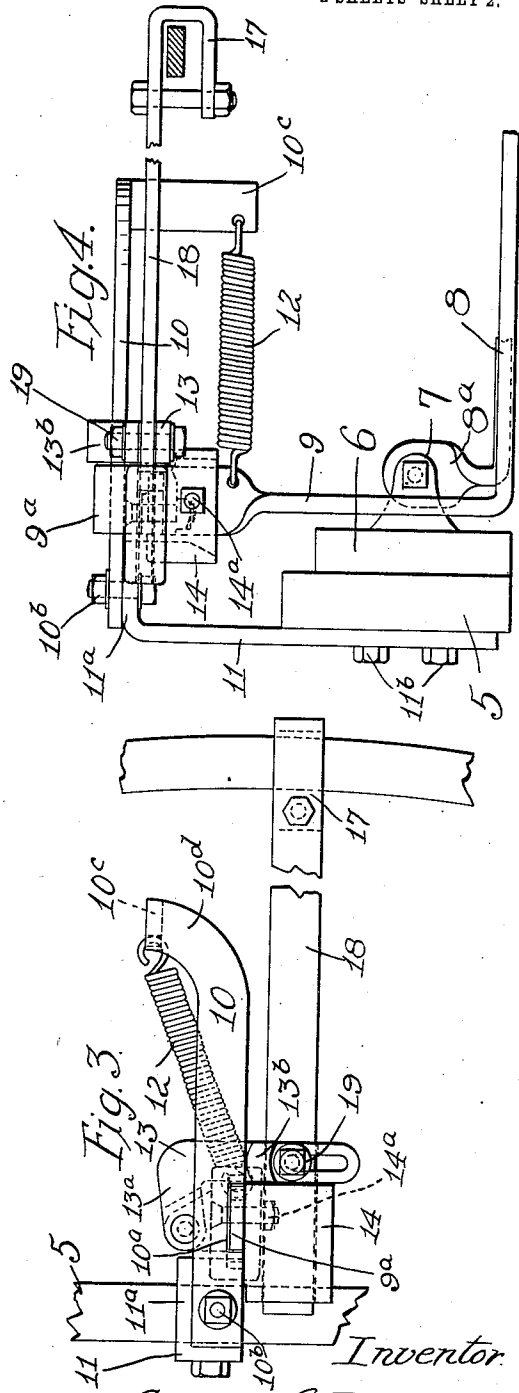
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UNITED STATES PATENT OFFICE.

GEORGE A. PARMENTER, OF CAMBRIDGE, MASSACHUSETTS.

LIFE-GUARD OR FENDER FOR RAILWAY-CARS.

1,007,600.

Specification of Letters Patent.

Patented Oct. 31, 1911.

Application filed June 24, 1911. Serial No. 635,196.

To all whom it may concern:

Be it known that I, GEORGE A. PARMENTER, citizen of the United States, residing at Cambridge, Massachusetts, have invented certain new and useful Improvements in Life-Guards or Fenders for Railway-Cars, of which the following is a specification.

My present invention relates to improvements in life guards or fenders for railway cars of the type known as trip and drop scoops.

I have aimed in devising my present invention to simplify and cheapen the construction, to insure the utmost quickness and certainty of action, and to otherwise improve the general construction and arrangement of the parts.

With these and other objects in view the invention comprises the novel features hereinafter described and particularly pointed out in the claims.

A fender constructed in accordance with my invention is illustrated in the accompanying drawings, in which:

Figure 1 is a plan view showing a sufficient portion of a car platform and sills in outline to illustrate the application of the fender thereto; Fig. 2 is a side elevation; Fig. 3 is an enlarged plan view of one of the throw off mechanisms, and Fig. 4 is a side elevation of the same.

Referring by reference characters to this drawing, the numeral 2 designates the car platform and 3 the sills. The swiveled truck frame is indicated at 4 having the usual cross bar or pilot board 5 provided with brackets 6 in which are yieldingly held the hangers 7 to which the castings or forgings 8^a of the scoop are pivotally connected. The scoop 8 is provided with a centrally disposed upwardly extending arm 9, the upper end of which is given a quarter turn to cause it to lie in a plane extending longitudinally of the car. The scoop is designed to be held normally raised or elevated by a catch arm 10 which has a recessed or shouldered portion 10^a in which the upper end 9^a of the arm 9 rests when the arm 10 is in locking position. The rear end of the arm 10 is pivoted at 10^b to the forwardly turned end 11^a of an upright member 11 which is bolted to the rear face of the pilot board as indi-

cated at 11^b. The forward end of the catch or locking arm 10 is curved or deflected laterally as indicated at 10^d, and has a downward extension 10^c which is connected by a diagonally arranged helical spring 12 with the arm 9. Thus the tension of the spring tends to hold the catch lever swung into locking position, but when said catch lever is moved positively against the tension of the spring to free the upper end of arm 9 from the retaining recess or shoulder, the forward pull of the spring upon the arm 9 tends to assist the action of gravity in quickly lowering or dropping the scoop.

In order to move the arm 10 laterally to unlock the scoop I provide a throw off lever 13 which has a rearwardly turned portion 13^a pivotally connected to an ear on a member or casting 14, which latter has a vertical slot through which the upper end of the arm 9 passes and to which it is connected by a pin or bolt 14^a. The slot is of sufficient dimension to permit the member 14 to have a limited amount of rocking movement in relation thereto. The throw off lever 13 has a lug or projection 13^b which, when the parts are in locked position, bears against the side of the locking lever or catch arm 10, and it will be readily seen that when the free end of the throw off lever is moved forward the lug or projection 13^b will force the locking lever or catch arm laterally until the locking shoulder is carried out of engagement with the upper end of the arm 9, when the scoop will be dropped in the manner hereinbefore explained. Any suitable means may be used for pulling forward the free end of the throw off lever, but when the construction thus far described is used upon double or radial truck cars, I provide what I call a "radius bar" which is curved or formed in the shape of an arc of a circle, which circle has for its center the pivotal axis of the truck. The ends of the bar are extended upwardly as indicated at 15, and pivotally connected to brackets 15^a carried by the sills of the car, so that the radius bar can be moved bodily longitudinally of the car, and the intermediate portion of the bar is unobstructed and is slidingly engaged by the loop or eye 17 of a pull bar or rod 18, the

rear end of which passes through a guiding or supporting recess or slot in the casting 14, and the pull bar 18 is connected to the throw off lever by a pin and slot connection as indicated at 19. One end of the radius bar is connected by a pull rod 20 with an arm 21 carried on a transverse rock shaft 22 at the front end of the car platform, and this arm is preferably in the form of a plate having an elongated slot, in the rear end of which the angularly turned end of the rod normally rests.

Brackets 23 project forwardly from the rock shaft to which are adjustably bolted the upright members 24^a of the trip frame 24 so that the distance of the bottom of the trip frame from the road bed may be varied. Thus if the trip frame encounters an obstruction upon the track, it will be swung rearwardly, pulling forward the pull rod, radial bar and pull bar 18, thus causing the throw off lever to be operated in the manner hereinbefore described. As soon as the scoop is unlocked, full forward movement of the parts on the complete drop of the scoop is permitted by the elongated slots in the arms 21. By supporting the trip frame from the forwardly extending arms of the rock shaft, its first backward movement tends to cause the lower edge to approach the ground and a very large amount of backward movement is permitted before the lower edge recedes from the road bed, and thus danger of the trip frame riding over smaller objects without tripping the scoop is avoided.

In order that the motorman may reset the scoop without leaving the car platform, I provide a treadle 25 arranged when depressed to rock a bell crank lever 26 pivoted in a bracket 27 depending from the car, which lever is connected by a push rod 28 with the opposite end of the curved or radius bar.

Some of the roads use shifting tables with raised platforms so arranged that when the car is run thereupon there is danger of the trip being accidentally operated. This objection I overcome by providing a treadle 29 which has its lower end connected to a chain or cable 30 passing over a pulley 31 and connected at the other end to the arm 23. Thus by pushing upon the treadle 29 the trip frame may be swung forward into the position shown in dotted lines in Fig. 2 and held there by the motorman until the obstruction has been passed. This treadle is also very useful in drifting snow.

Having thus described my invention what I claim is:

1. A car fender comprising a drop scoop, a vertically extending arm adapted to move forward for dropping the scoop, a locking lever having a shoulder for engaging said

arm, a throw off lever having a part for operating said locking lever, and means for operating said throw off lever.

2. A car fender comprising a drop scoop, an arm adapted to move forward for dropping the scoop, a locking lever having means for engaging said arm to hold it locked against movement, a throw off lever for operating the locking lever, a spring connecting the throw off lever with said arm, and means for operating said throw off lever.

3. A car fender comprising a drop scoop, an arm adapted to move forward to drop the scoop, a transversely swinging locking lever having means for engaging said arm for holding it in locking position, said lever having a transversely deflected forward end, a diagonally arranged spring connecting said deflected end with said arm, and means for moving said locking lever to release said arm.

4. A car fender comprising a drop scoop, an arm adapted to move forward to drop the scoop, a transversely swinging locking lever pivoted to a fixed support at its rear end and having means for engaging said arm to hold the scoop elevated, spring means tending to hold said lever in locking position, a throw off lever extending transversely of said locking lever and having a rearwardly turned end upon which said lever fulcrums, an abutment on said throw off lever contacting with the side of the locking lever, and means for operating said throw off lever.

5. The combination with the truck frame of a car, of a scoop pivoted thereto, an arm extending upwardly from said scoop, a locking lever pivotally supported at its rear end from said truck frame, and having means for engaging said arm, a curved bar extending transversely of the car body and capable of being moved in a direction longitudinal of the car, means for moving said curved bar, and means for causing the movement of said curved bar to operate the locking lever.

6. The combination with the truck frame of a car, of a scoop pivoted thereto, an arm extending upwardly from said scoop, a locking lever pivotally supported at its rear end from said truck frame and having means for engaging said arm, a pivoted throw off lever extending transversely of said locking lever and having an abutment bearing against the side of the lever, a curved bar extending transversely of the car body and supported therefrom, and capable of being bodily moved in a direction longitudinal of the car, and a pull rod or bar having its front end slidably connected with said curved bar and its rear end connected with said throw off bar.

7. The combination with the truck frame of a car, of a scoop pivoted thereto, an arm extending upwardly from said scoop, a locking lever pivotally supported at its rear end from said truck frame and having means for engaging said arm, a member suitably secured to the upper portion of said arm, a throw off lever pivoted to said member, and having a part for engaging the locking lever, a pull rod or bar connected with said throw off lever and guided by said member, and means for operating said pull rod or bar.

8. The combination with the truck frame of a car, of a scoop pivoted thereto, an arm extending upwardly from said scoop, a locking lever pivotally supported at its rear end from said truck frame, and having means for engaging said arm, a member having a vertical slot through which said arm passes, a bolt connecting said arm and member, a throw off lever having a rearwardly turned end pivotally connected to said member, said throw off lever extending transversely across the locking lever and having a part adapted to abut against the side thereof, and a pull rod or bar having its rear end guided in said member and having a pin and slot connection with said throw off lever.

9. The combination with the truck frame of a car, of a scoop pivoted thereto, an arm extending upwardly from said scoop, a locking lever pivotally supported at its rear end from said truck frame and having means for engaging said locking lever, a curved bar extending transversely of the car body and capable of being moved in a direction longitudinal of the car, a trip frame supported at the front end of the car, a connection from the trip frame to one end of said curved bar, whereby rocking of the trip frame moves said curved bar, and means for causing the movement of said curved bar to operate the locking lever.

10. The combination with the truck frame of a car, of a scoop pivoted thereto, an arm extending upwardly from said scoop, a locking lever pivotally supported at its rear end from said truck frame and having means for engaging said arm, a pivoted throw off lever extending transversely of said locking lever and having an abutment bearing against the side of the lever, a curved bar extending transversely of the car body and supported therefrom and capable of being bodily moved in a direction longitudinal of the car, and a pull rod or bar having its front end slidably connected with said throw off lever, a rock shaft at the front end of the car, a trip frame connected to said rock shaft, an arm on the rock shaft, and a rod or cable connecting said arm with the end of the curved bar.

11. In a car fender the combination with a drop scoop, of a trip frame mounted to swing on a horizontal axis and having connections for effecting the dropping of the scoop, said trip frame lying in a plane in advance of the said axis.

12. In a car fender, the combination with a drop scoop, of a rock shaft having connections for effecting the dropping of the scoop, arms or brackets extending forwardly from said shaft, and a trip frame carried by said brackets.

13. In a car fender, the combination with a drop scoop, of a rock shaft having connections for effecting the dropping of the scoop, arms or brackets extending forwardly from said shaft, and a trip frame adjustably carried by said brackets.

14. In a car fender, the combination with a drop scoop, of a rock shaft having connections for effecting the dropping of the scoop, a trip frame carried by said rock shaft, an arm extending forwardly from the rock shaft, and a vertically movable push rod or treadle extending through the platform and having its lower end connected with said arm.

15. The combination with the truck frame of a car, of a scoop pivoted thereto, an arm extending upwardly from said scoop, a locking lever pivotally supported at its rear end from said truck frame and having means for engaging said arm, a pivoted throw off lever extending transversely of said locking lever and having an abutment bearing against the side of the lever, a curved bar extending transversely of the car body and supported therefrom and capable of being bodily moved in a direction longitudinal of the car, a pull rod or bar having its front end slidably connected with said curved bar and its rear end connected with said throw off lever, and means for moving said curved bar backwardly to effect the resetting of the scoop.

16. The combination with the truck frame of a car, of a scoop pivoted thereto, an arm extending upwardly from said scoop, a locking lever pivotally supported at its rear end from said truck frame and having means for engaging said arm, a pivoted throw off lever extending transversely of said locking lever and having an abutment bearing against the side of the lever, a curved bar extending transversely of the car body and supported therefrom and capable of being bodily moved in a direction longitudinal of the car, a pull rod or bar having its front end slidably connected with said curved bar and its rear end connected with said throw off lever, means for moving said curved bar backwardly to effect the resetting of the scoop, said means comprising a bell crank lever at the front of the car, a

push rod connecting said bell crank lever with said curved bar, and a manually operable device on the car platform for rocking said bell crank lever.

5 17. In a car fender, the combination with a drop scoop, of a tripper arranged to be swung rearwardly to drop the scoop, and means for elevating said tripper from the

car platform without affecting the lowering of the scoop.

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

GEORGE A. PARMENTER.

Witnesses:

ARTHUR BURNHAM,
WM. H. BREWER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."