(No Model.)

J. J. HOLLOWAY & J. W. STARKWEATHER.

UNREMITTING ROTARY CAR FENDER.

No. 571,320. Patented Nov. 10, 1896.

Fig. 1.

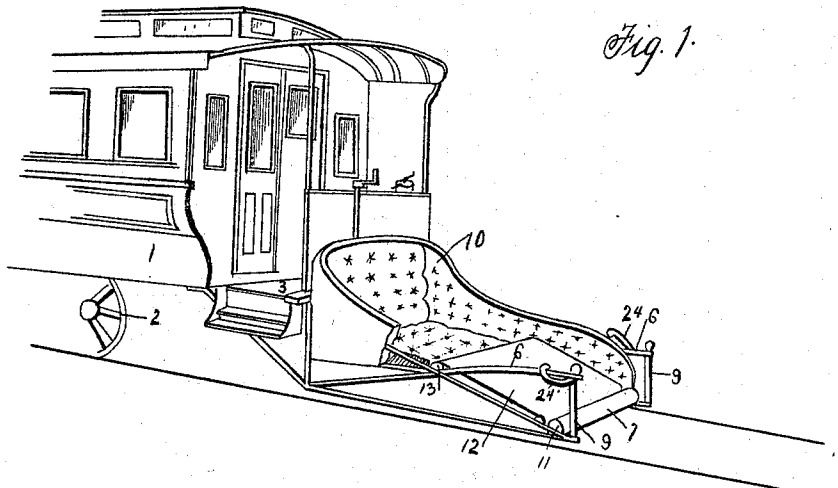


Fig. 2.

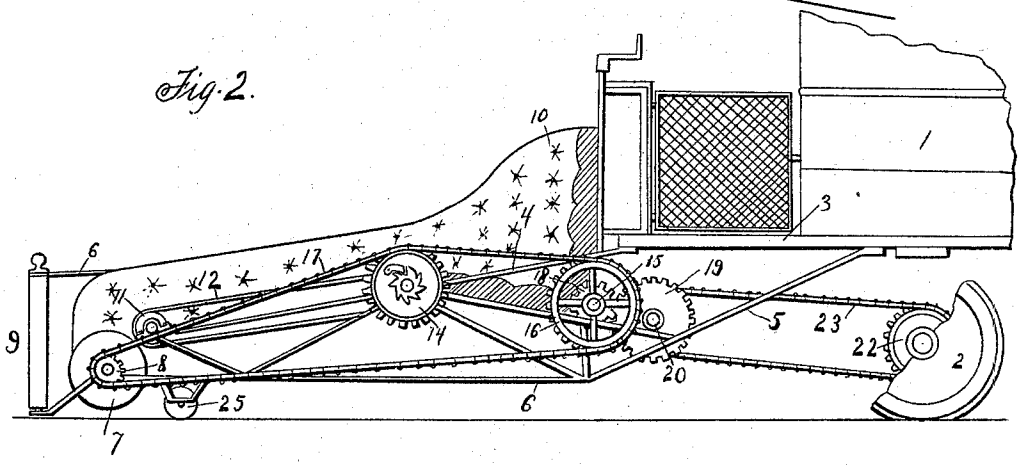
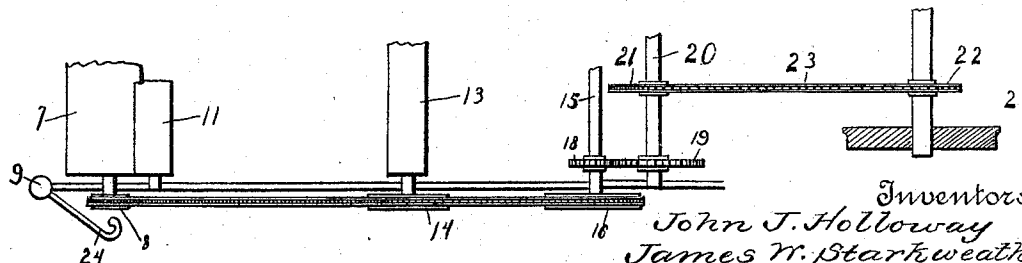


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN JAMES HOLLOWAY AND JAMES WILLIAM STARKWEATHER, OF LOS ALAMOS, CALIFORNIA.

UNREMITTING ROTARY CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 571,320, dated November 10, 1896.

Application filed June 19, 1896. Serial No. 596,175. (No model.)

To all whom it may concern:

Be it known that we, JOHN JAMES HOLLOWAY and JAMES WILLIAM STARKWEATHER, citizens of the United States, residing at Los Alamos, in the county of Santa Barbara and State of California, have invented certain new and useful Improvements in Unremitting Rotary Car-Fenders; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in car-fenders, the object of the same being to provide a simple and convenient device to be attached to the front ends of electric or other cars for preventing persons or other objects struck from coming in contact with the wheels of the car and being thereby injured.

The invention consists of a framework secured to the forward end of the car, a padded chair or buffer supported by the frame, a cylinder at the forward end of the frame which is rotated, by means of suitable gearing from the wheels of the car, in a reverse direction to that of said wheels, an apron or carrier-belt extending from a point just behind said cylinder leading rearwardly to said padded chair or buffer, and means for rotating the drums upon which said apron is mounted.

The invention also consists in other details of construction and combinations of parts, which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 represents a perspective view of a car with our improved fender attached thereto, certain parts being broken away. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is a plan view showing the gearing on one side.

Like reference-numerals indicate like parts in the different views.

The car 1, to which our fender is adapted to be secured, is provided with the usual wheels 2 and platform 3. To the under side of the car 1 are connected a series of brace-rods 4 5 6, constituting the supporting-framework of our fender. In the outer end of the bars 4 is pivotally mounted a cylinder 7, having a sprocket-wheel 8 upon one end thereof. Projecting upwardly from the forward ends of the bars 4 are two upright rollers 9 9, the shaft upon which said rollers 9 are mounted being braced from its upper end by the brace-rod 6. Extending around the sides and rear end of the fender-supporting frame is a padded chair or buffer 10, as clearly shown in Fig. 1. Mounted in suitable bearings in the fender-supporting frame, at a point just in the rear of the cylinder 7, is a drum or roller 11, around which passes an apron or carrier-belt 12, which also passes around a second drum or roller 13, mounted in suitable bearings and provided with a sprocket-wheel 14 upon its outer end.

15 is a shaft mounted in bearings in the fender-supporting frame at a point just beneath the front platform of the car. This shaft carries a sprocket-wheel 16, around which and around the sprocket-wheels 14 and 8 passes a sprocket-chain 17. The said shaft 15 has further secured to it a pinion 18, which meshes with a cog-wheel 19 upon a shaft 20, mounted in the fender-supporting frame just in the rear of the shaft 15. The shaft 20 has secured to it a sprocket-wheel 21, around which and a sprocket-wheel 22 on the shaft upon which the car-wheel 2 is mounted passes a sprocket-chain 23. Upon the upper end of the shafts upon which the rollers 9 are mounted are deflecting-shields 24 24 for the purpose of deflecting objects coming in contact with the fender to the outside of said rollers, the rollers 9 9 serving the same function.

On the under side of the brace-rod 4, at a point near the forward end thereof, is mounted in a suitable bracket an idler-roller 25, which tends to support the forward end of the fender-supporting frame and prevent the roller 7 from falling down into contact with the ground.

From the foregoing description it will be seen that the forward movement of the car 1 will transmit, through the wheel 2, the sprocket-wheel 22, sprocket-chain 23, sprocket-wheel 21, cog-wheel 19, pinion 18, sprocket-wheel 16, sprocket-chain 17, and sprocket-wheels 14 and 8, a rotary movement to the cylinder 7 and drum 13 in a direction opposite to that of the

rotation of the wheels 2. This being done, a person or other object struck by the forward end of the fender will be lifted by the cylinder 7 onto the apron or carrier-belt 12 and carried thence back into the padded chair or buffer 10. Dangerous or fatal accidents to persons struck by the car are thereby effectually prevented. In constructing our improved fender we propose to cover the cylinder 7 and rollers 9 9 with rubber or other suitable material.

For rapidly-moving cars we may substitute, if we desire, for the single roller 7 a pair of rollers arranged angularly one to the other after the manner of an ordinary cow-catcher, which shall be located at the front of the fender-frame and operated by the same mechanism as we have described with reference to the roller 7.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a car mounted upon suitable wheels, of a fender therefor secured to the under side of the car by suitable brace-rods constituting a fender-supporting frame, a cylinder located in the forward end of said frame, a pair of drums or rollers in the rear of said cylinder, an apron or carrier-belt surrounding said drums and means, actuated by the forward movement of the car, for rotating said cylinder and drums in a reverse direction to that of the car-wheels, substantially as and for the purpose described.

2. The combination with a car mounted upon suitable wheels, of a fender therefor secured to the under side of the car by suitable brace-rods constituting a fender-supporting frame, a cylinder located in the forward end of said frame having a sprocket-wheel upon its outer end, a pair of drums or rollers located just in the rear of said cylinder, one of said drums having a sprocket-wheel upon its outer end, an apron or carrier-belt surrounding said drums, a counter-shaft mounted in said frame having a sprocket-wheel upon its outer end, a chain surrounding the sprocket-wheels on said counter-shaft, on said drum and on said cylinder, a pinion on said counter-shaft, a gear-wheel meshing with said pinion and secured to a second counter-shaft, a sprocket-wheel thereon, and a sprocket-chain connecting said sprocket-wheel and a similar sprocket-wheel on the shaft upon which said wheel is mounted, substantially as and for the purpose described.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

JOHN JAMES HOLLOWAY.
JAMES WILLIAM STARKWEATHER.

Witnesses:
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