No. 704,461. Patented July 8, 1902.

J. T. HODGINS.

CAR FENDER.

(Application filed Nov. 4, 1901.)

(No Model.) 2 Sheets—Sheet 1.

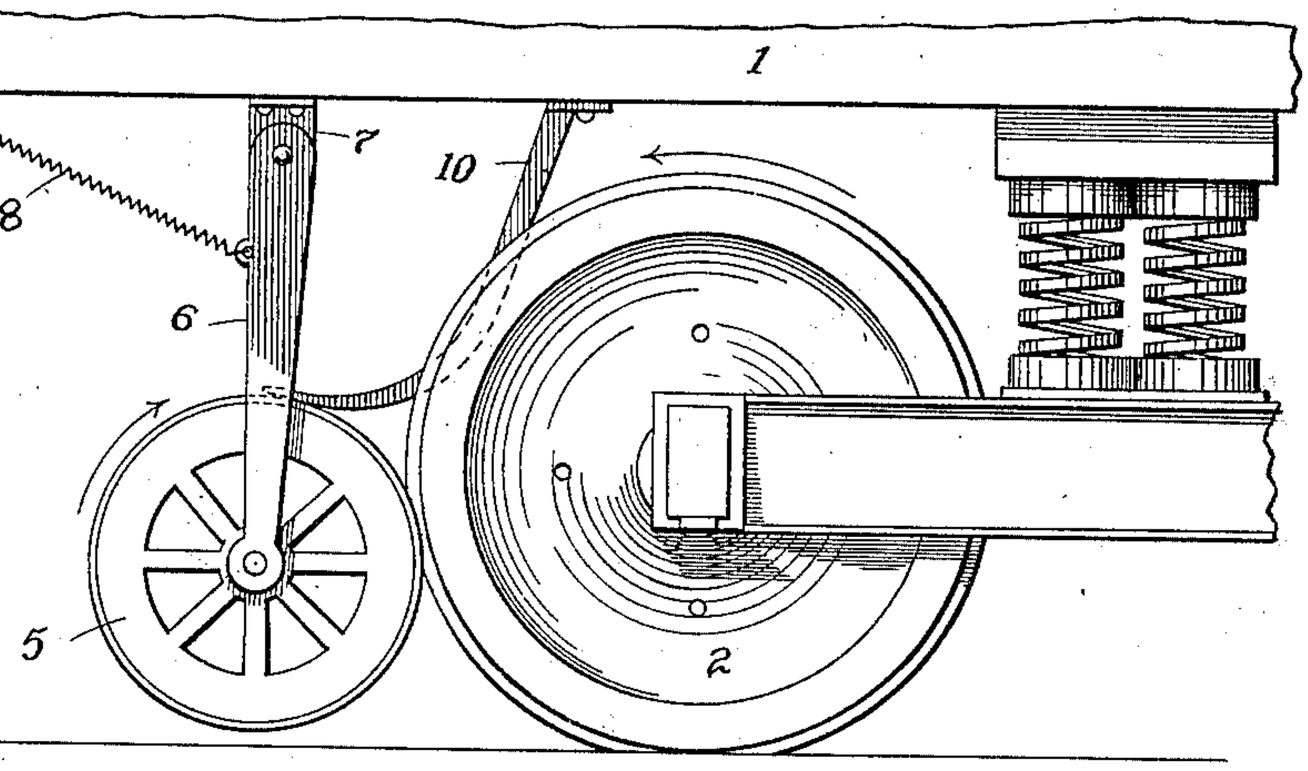

Fig. 1.

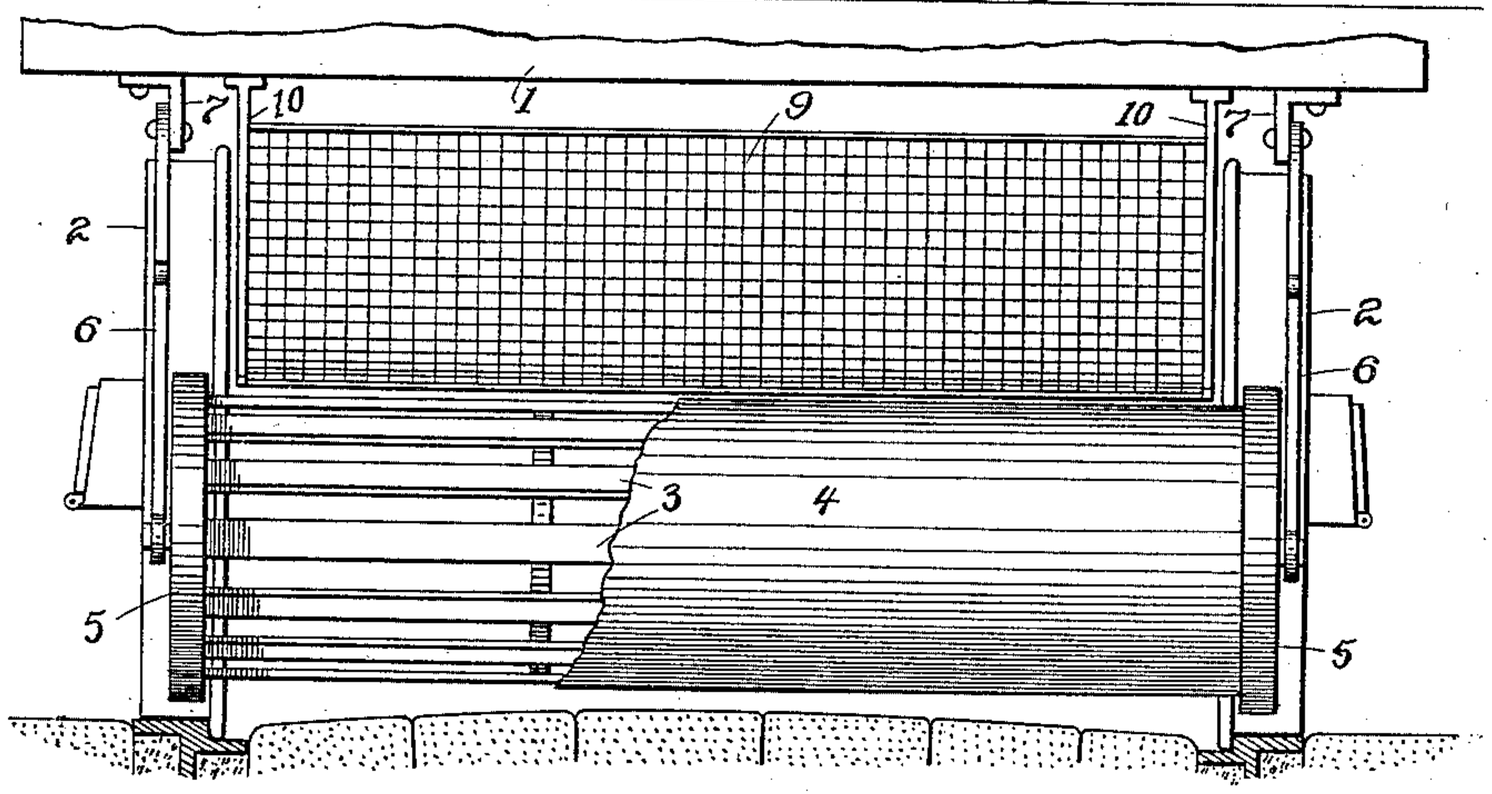

Fig. 2.

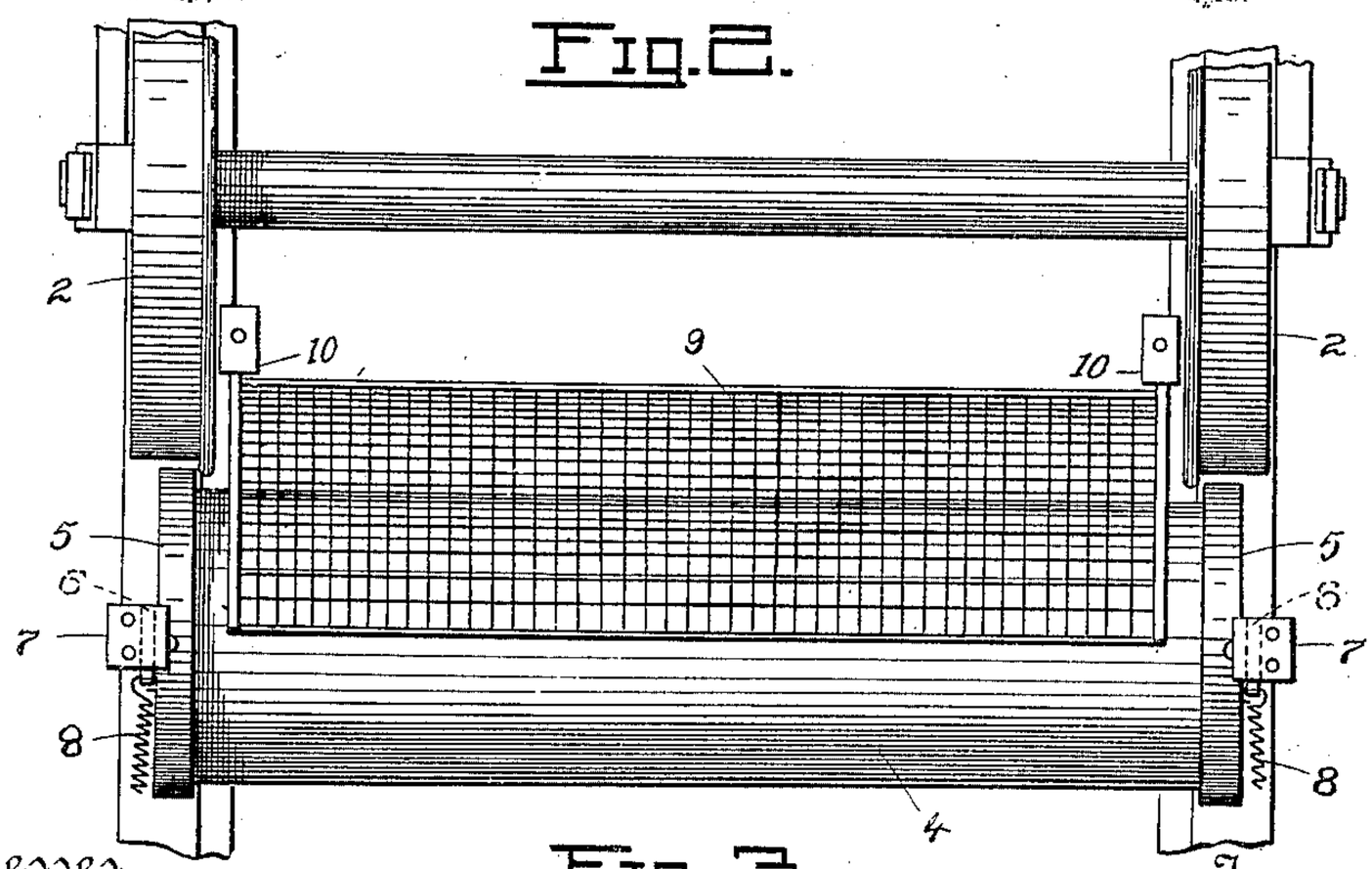

Fig. 3.

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Fig. 4.

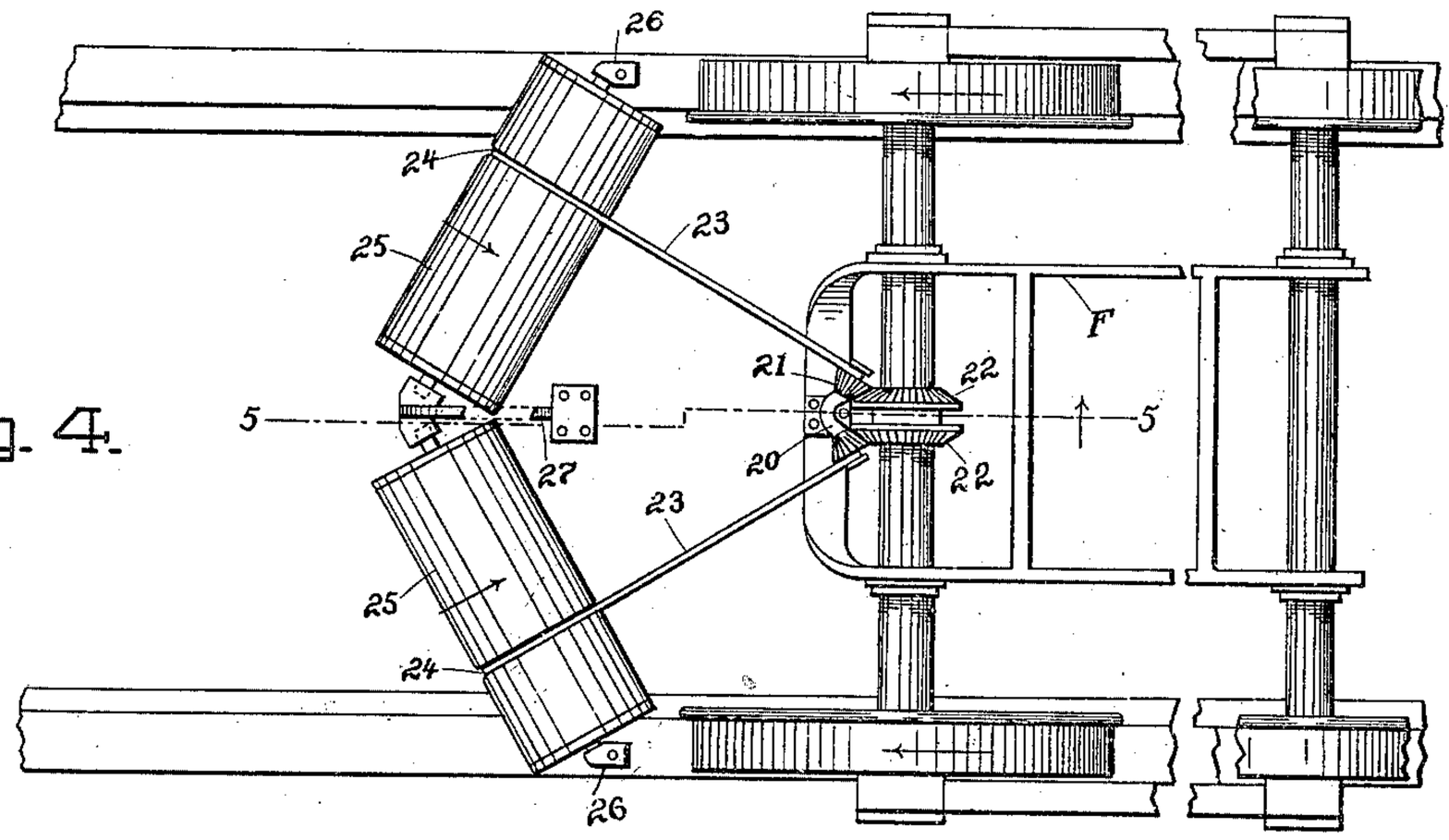


Fig. 5.

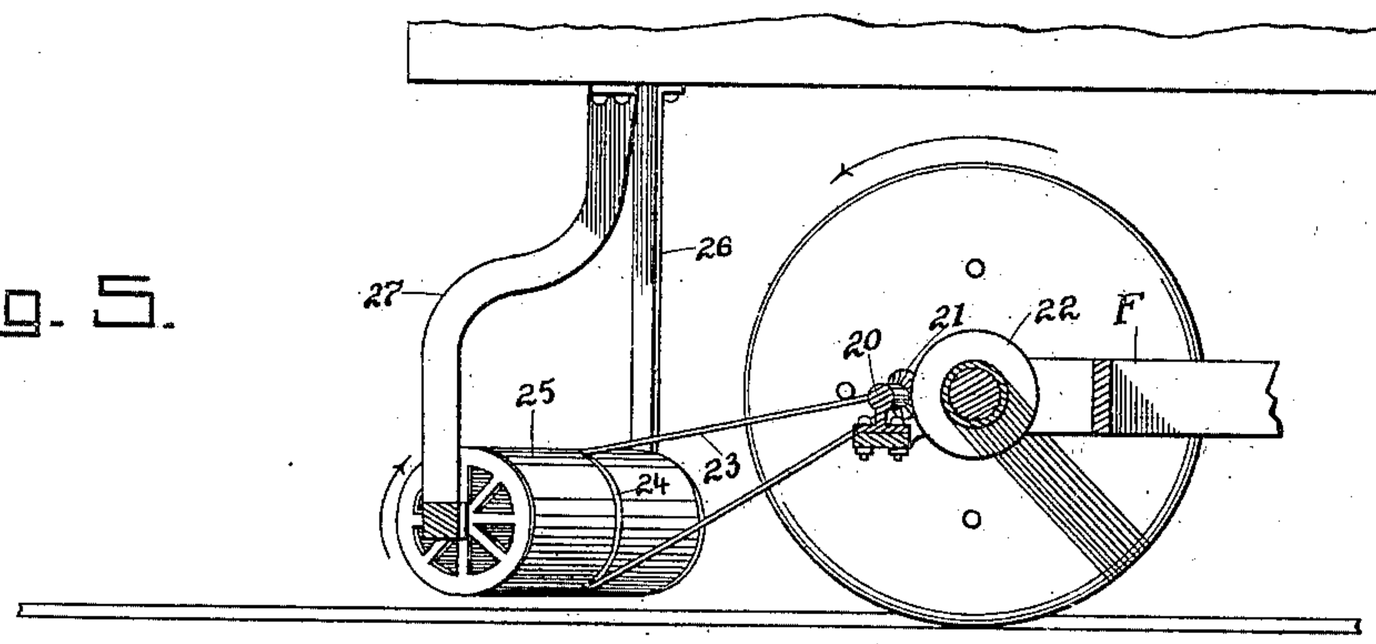
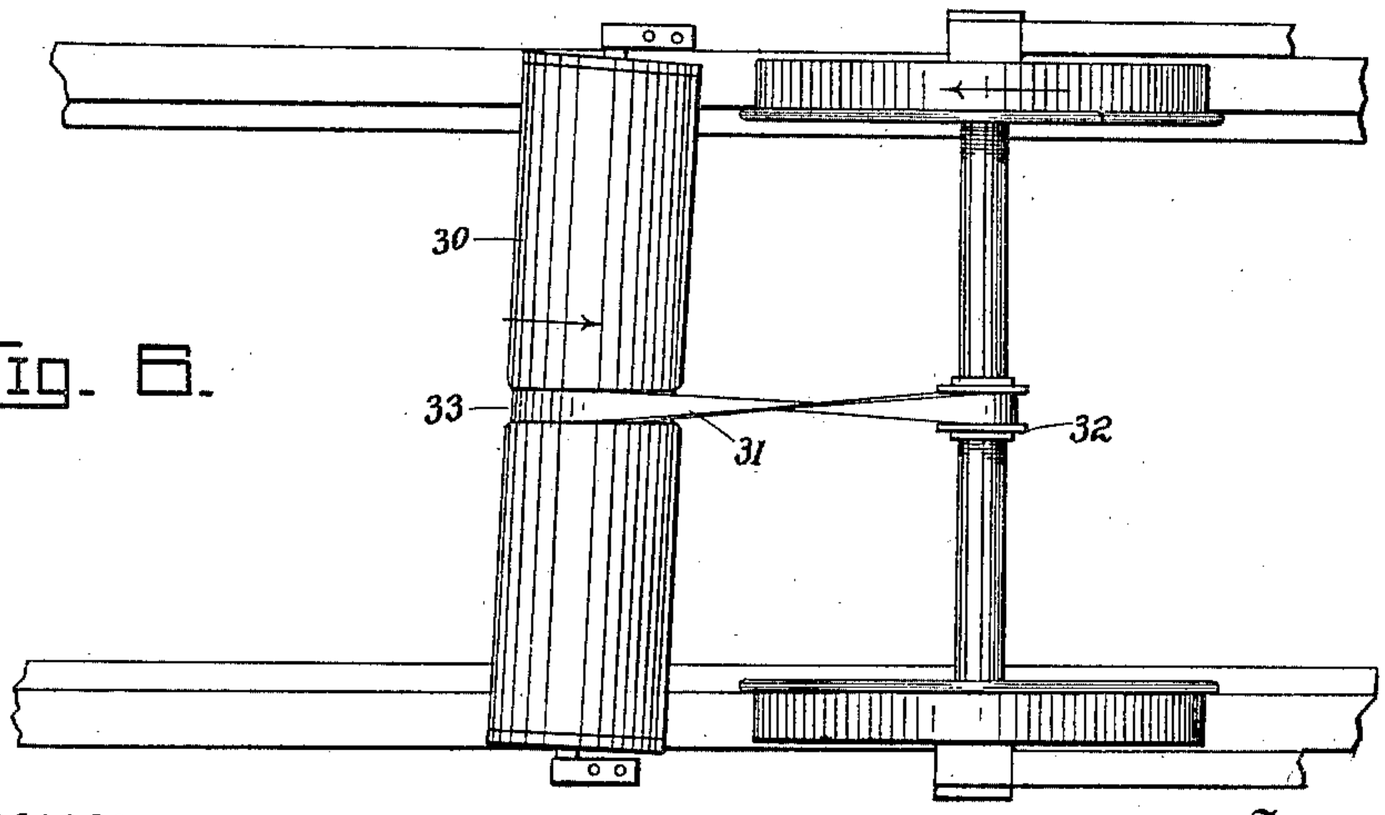


Fig. 6.



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JOHN T. HODGINS, OF ST. LOUIS, MISSOURI.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 704,461, dated July 8, 1902.

Application filed November 4, 1901. Serial No. 81,058. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. HODGINS, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Car-Fenders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in street-car fenders; and it consists in the novel construction and arrangement of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of the preferred form of my invention. Fig. 2 is a front elevation with the springs removed. Fig. 3 is a top plan with the car-body removed. Fig. 4 is a plan of a modification with car-body removed. Fig. 5 is a vertical section on line 5 5 of Fig. 4, and Fig. 6 is a plan of another modification.

The object of my invention is to construct a car-fender which will serve as an effective life-saving device capable of positively sweeping or removing off the track the person struck by the car. In detail the invention may be described as follows:

Referring to the drawings, and particularly to Figs. 1 to 3, inclusive, 1 represents the platform of an ordinary car, and 2 the truck-wheels thereof. Mounted directly in advance of the wheels is a cylinder or drum 3, composed of a central cylindrical frame protected by an outer cover 4, of rubber, leather, canvas, or equivalent soft material, and of the terminal circular heads or disks 5, adapted under certain conditions to frictionally engage the treads of the wheels and have rotation imparted thereto in a direction reverse to that of the wheels 2. The drum 3 is suspended from arm 6, pivotally depending from brackets 7 at the bottom of the car body or platform, (or truck,) the drum being normally held retracted from engagement with the treads of the wheels by springs 8, having their opposite ends secured, respectively, to the arms 6 and to the bottom of the car. To the rear of the drum 3 is secured an apron 9, carried between the curved arms 10, projecting from the floor of the car at a point slightly in advance of the truck. In case of collision with a person (or any object) on the track the impact with such person or object will force the disks 5 of the drum into engagement with the car-wheels, the latter under the circumstances imparting to the disks, and consequently to the drum, a rotation in a contrary direction, the drum in such reverse rotation sweeping the person off the track and preventing him from passing under the wheels. The apron 9 serves as an additional precaution in preventing small objects or infants from being carried around with the drum under the car.

In the modifications illustrated in Figs. 4 to 6, inclusive, I provide intermediate gearing for the driving of the drums, which enable the latter to be disposed at an angle to the axles of the car-truck, either in the shape of a single drum or in pairs. These modifications I shall now proceed to describe.

Referring to Figs. 4 and 5, F represents a frame through which the pair of axles of the front truck loosely pass, the forward end of the frame serving to carry a bracket 20 for the support of the inner spindles or studs of the bevel-pinions 21 21, the latter meshing with corresponding bevel gear-wheels 22 22, secured to the front axle. The axes of the pinions incline to the axle, the outer bosses of the pinions serving to carry the belts 23, passing over the peripheral grooves 24 of the similarly-inclined drums 25 25, the studs or spindles of which are supported, respectively, by the outer depending arms 26 and the central depending bracket 27, secured to the bottom of the car or truck.

In Fig. 6 I have shown a single drum 30, inclined slightly to the axle of the front pair of wheels, the drum having imparted thereto rotation in the proper direction by a cross-belt 31, passing over a collar 32 on the axle and over a groove 33, formed in the periphery of the drum.

It is of course within the contemplation of my invention to employ the terminal disks 5 without the connecting-drum portion, the broad idea being to employ a disk, wheel, or drum whose direction of rotation shall be opposite to that of the truck-wheels, so that the object or person struck, instead of being run over by said wheels, shall from the mo-

ment of the impact be effectively thrown from the track, and thus escape death or possible injury.

From the foregoing it is apparent that the device is susceptible of various modifications without departing in any wise from the spirit of my invention.

Having described my invention, what I claim is—

1. A car-fender comprising a suitable drum or disk located in advance of the car-truck, and adapted to be forced into engagement with the car-wheels upon impact with a body on the track, and to have rotation imparted thereto in a direction contrary to that of the wheels with which it is in engagement, substantially as set forth.

2. A car-fender comprising a suitable rotatable drum suspended on arms pivotally depending from the car-body, springs for normally retaining said drum out of engagement with the car-wheels, the heads of the drum being adapted to be forced into engagement with the tread of the wheels upon impact with an object on the track, whereby rotation is imparted to said drum in a direction contrary to the wheels and the object struck effectively swept off the track, substantially as set forth.

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

JOHN T. HODGINS.

Witnesses:
EMIL STAREK,
META JUEHNE.