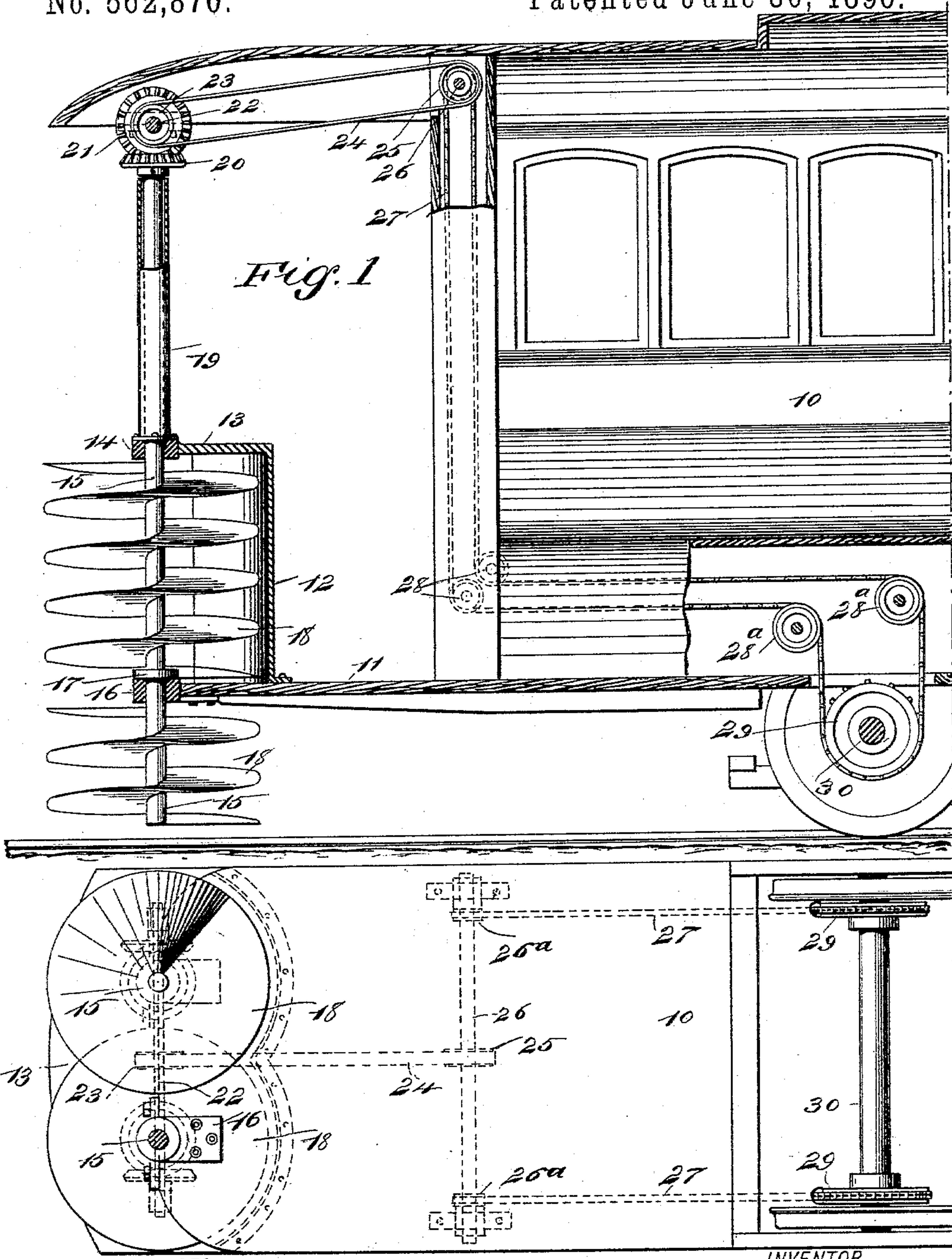


(No Model.)

O. A. WHITE.
CAR FENDER.

No. 562,870.

Patented June 30, 1896.



WITNESSES:

John A. Bingham
W. C. Sedgwick

Fig. 2

INVENTOR

O. A. White
BY *Munn & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

OCTAVIUS A. WHITE, OF NEW YORK, N. Y.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 562,870, dated June 30, 1896.

Application filed January 18, 1894. Serial No. 497,311. (No model.)

To all whom it may concern:

Be it known that I, OCTAVIUS A. WHITE, of the city, county, and State of New York, have invented a new and Improved Car-Fender, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of devices which are used on the ends of cars, particularly street-cars, to prevent people from being run over by the said cars.

The object of my invention is to produce a very inexpensive and simple apparatus of this kind, which may be conveniently applied to a car and in which oppositely-revoluble drums are employed, these being arranged so that in case a person is run down by the car he will be thrown to one side of the track and thus saved from serious injury.

A further object of my invention is to construct and arrange these drums in such a manner that they will not come into injurious contact with a person, that they will not be in the way of passengers on the car, and that they will be always in revolution when the car is moving and stationary when the car stops.

To these ends my invention consists of certain features of construction and combinations of parts which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar figures of reference indicate corresponding parts in both the views.

Figure 1 is a broken longitudinal section of a car provided with my improved safety appliance. Fig. 2 is an inverted plan of the car and the safety appliance.

The car 10 is of the usual kind, and its platform 11 is projected forward beyond the rigid and customary fender 12, which is arranged in the usual way, but which is bent outward at the top to form a supporting-arm 13, in which are bearings 14 for the vertical shafts 15, which also turn in suitable bearings 16 on the end of the platform 11 and have collars 17 resting on the bearings 16, so as to hold the shaft at the right height.

The shafts 15 have their lower ends arranged close to the road-bed and they turn in opposite directions in their bearings,

while the upper ends of the shafts are inclosed in casings 19, which prevent people on the platform from coming into injurious contact with the shafts. The upper ends of the shafts 15 are provided with beveled pinions 20, meshing with similar pinions 21 on a transverse shaft 22, which is hung beneath the car-roof and is provided with a pulley 23, driven by a belt 24, connecting with a pulley 25 on a counter-shaft 26, which is journaled just beneath the car-roof and arranged parallel with the shaft 22, the shaft 26 being hung in the hollow front wall of the car, as shown clearly in Fig. 1, and it is provided with sprocket-wheels 26^a, driven by chains 27, which extend over suitable guide-pulleys 28 and 28^a in the hollow walls of the car and are driven by sprocket-wheels 29 on the car-axle 30. It will thus be seen that when the car is in motion the shafts 15 are turned and in opposite directions.

The lower portion of each shaft, that is, the part below the arm 13, is formed into a drum by means of a flange 18, which is arranged spirally on the shaft and which is preferably of rubber, vulcanized, and made sufficiently unyielding to render it rigid enough to throw a person from the track, but flexible enough to prevent it from cutting or badly bruising the person whom it strikes.

The flange 18 is preferably arranged spirally, as specified, a break of course being made in the flange opposite the bearing 16, so that the shaft may turn properly. Instead of having the flange in the form of a spiral, the drum may be made up of a series of disks, or the drum may be solid with substantially the same effect, although the spiral and somewhat flexible flange is preferable.

From the foregoing description it will be seen that the drums will rotate oppositely, as described, and that if a person is struck by them he will be immediately thrown from the track aside, and thus saved from serious injury.

I have shown and described a simple means of turning the drums from the car-axle, but it will be understood that any operative mechanism may be employed for this purpose.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a car provided

with a supporting-arm above its platform, of vertical parallel shafts mounted in the arm and platform and extending above the arm and below the platform, said shafts each being provided with a spiral yielding flange, and means for revolving the shafts in opposite directions, substantially as described.

2. The combination with the car-platform having a fender on its platform, of the vertical shafts mounted in front of the fender and extending below the platform and the wide, flexible spiral flanges on the shafts both in front of and below the fender, the said flanges extending the same distance from the shafts throughout their length, and means for rotating the shafts, substantially as described.

3. The combination with a car provided with a supporting-arm above its platform, of vertical parallel shafts mounted in the arm and platform and extending above and below the same, said shafts being provided with spiral yielding flanges, casing inclosing the upper ends of the shafts and means for re-

volving the shafts in opposite directions, substantially as described.

4. The combination with a car provided with a fender on its platform, said fender being provided with a forwardly-projecting portion at its upper end, of vertical shafts mounted in the platform and the forwardly-projecting portion of the fender, said shafts being provided with spiral yielding flanges, casings inclosing the upper ends of the shafts, and means for revolving the shafts in opposite directions from the front axle of the car, substantially as described.

5. In a car-fender, the shaft 15 having a wide flange proceeding spirally about it and formed of india-rubber, the outer edge of the flange being the same distance from the shaft or parallel therewith, throughout its length, substantially as described.

OCTAVIUS A. WHITE.

Witnesses:

WARREN B. HUTCHINSON,
C. SEDGWICK.