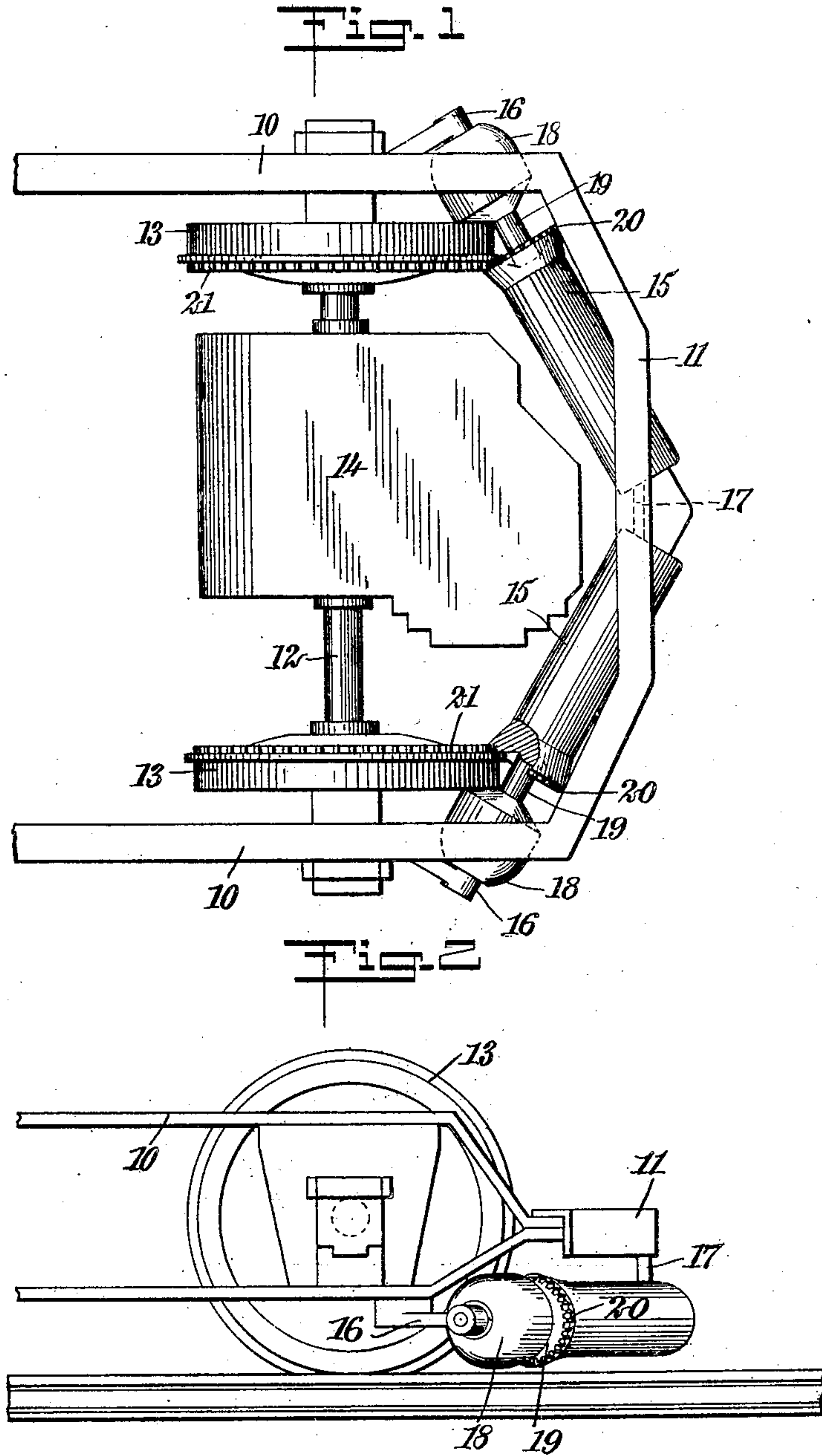


F. E. HUTCHINGS.
 ROTARY WHEEL GUARD.
 APPLICATION FILED NOV. 3, 1908.

920,574.

Patented May 4, 1909.



WITNESSES
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UNITED STATES PATENT OFFICE.

FREDERICK E. HUTCHINGS, OF NEW YORK, N. Y.

ROTARY WHEEL-GUARD.

No. 920,574.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed November 3, 1908. Serial No. 460,821.

To all whom it may concern:

Be it known that I, FREDERICK E. HUTCHINGS, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Rotary Wheel-Guard, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in rotary wheel guards for vehicles, and more particularly to certain improvements in that type of wheel guard shown in my prior application, Serial Number 432,604, filed May 13, 1908.

The special object of the present invention is to so construct the guard and to so mount the same that said guard will be at the minimum distance from the wheel, and the possibility of any person or object falling behind the guard and in front of the wheel will be eliminated.

A further object of my invention is to provide an improved driving means for the guard, so as to eliminate all chains, sprockets or other transmission gearing.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures, and in which—

Figure 1 is a top plan view of a portion of a car truck constructed in accordance with my invention; and Fig. 2 is a side elevation thereof.

My improved guard is adapted for use in connection with any form of street car, railway car, motor vehicle, or the like, and the construction of the frame and driving means of the vehicle do not involve any feature of my invention.

In the particular form illustrated, I employ my improved wheel guard in connection with a vehicle having a frame including side members 10 and a transverse member 11. The side members carry journal boxes for an axle 12, which may have traction wheels 13 driven by any suitable form of motor 14.

My invention involves the use of two cylinders or drums 15, diagonally disposed in respect to the car and so mounted as to rotate directly in front of the wheels 13. Each drum extends from a point adjacent the medial line of the car to a point outside of the corresponding wheel 13 and is disposed as closely to said wheel as possible. Each

drum is mounted in suitable bearings 16 carried by the side members 10 of the frame and in a central bearing 17 depending from the transverse member 11 of the frame. Each drum is disposed closely adjacent the track or roadbed, so that objects cannot readily pass beneath the drum. The outer end 18 of each drum is curved to substantially semi-spherical form, so that the terminal portion faces outwardly and will throw articles coming in contact therewith, to one side. Each drum at the portion thereof directly in front of the corresponding wheel, is provided with a reduced portion 19, rotating closely adjacent the periphery of the wheel. The portion of the drum at the outer side of the reduced portion is beveled, so as to lie closely adjacent the outer surface of the wheel, while the portion of the drum at the opposite side of the reduced portion is dished or countersunk to receive the flange of the wheel. Adjacent this disk or countersunk portion is a series of gear teeth 20, which mesh with the teeth of a gear 21 carried by the wheel, so that the drum is rotated by the wheel and in the reverse direction.

As the car travels forwardly, the drums are rotated by the wheels, and the front sides of the drums move upwardly and outwardly to throw any object on the track out of the path of the wheels. The outer curved ends throw objects to one side should they come in contact therewith, and the drums being driven by the wheels are so close to the latter that an object cannot readily fall beneath the drum and the wheel.

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

1. The combination with a vehicle having a supporting wheel, of a rotary wheel guard disposed in front of said wheel and comprising a drum having a reduced portion intermediate its ends and directly in front of said wheel and engaging therewith to cause the rotation of the guard by the wheel.

2. The combination with a vehicle having a supporting wheel, of a drum extending across in front of the wheel and having its axis at an angle to the axis of the wheel, and co-acting gears carried by said wheel and said drum intermediate the ends of the latter.

3. The combination with a vehicle having a supporting wheel, of a drum disposed in front of said wheel and having its axis at an

angle to the axis of the wheel, said drum having the outer end thereof of substantially semi-spherical form.

4. The combination with a vehicle having
5 a supporting wheel, of a rotary wheel guard disposed in front of said wheel and comprising a drum having a reduced portion intermediate its ends and directly in front of said wheel, and co-acting gears carried by said

wheel and said wheel guard adjacent the reduced portion of the latter. 10

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK E. HUTCHINGS.

Witnesses:

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