

No. 617,538.

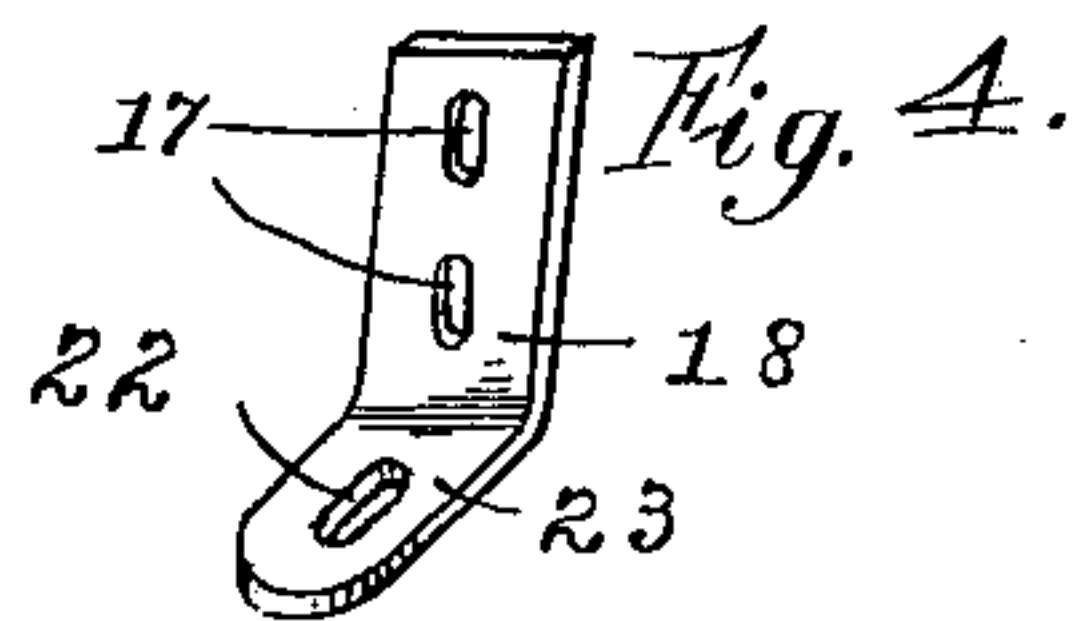
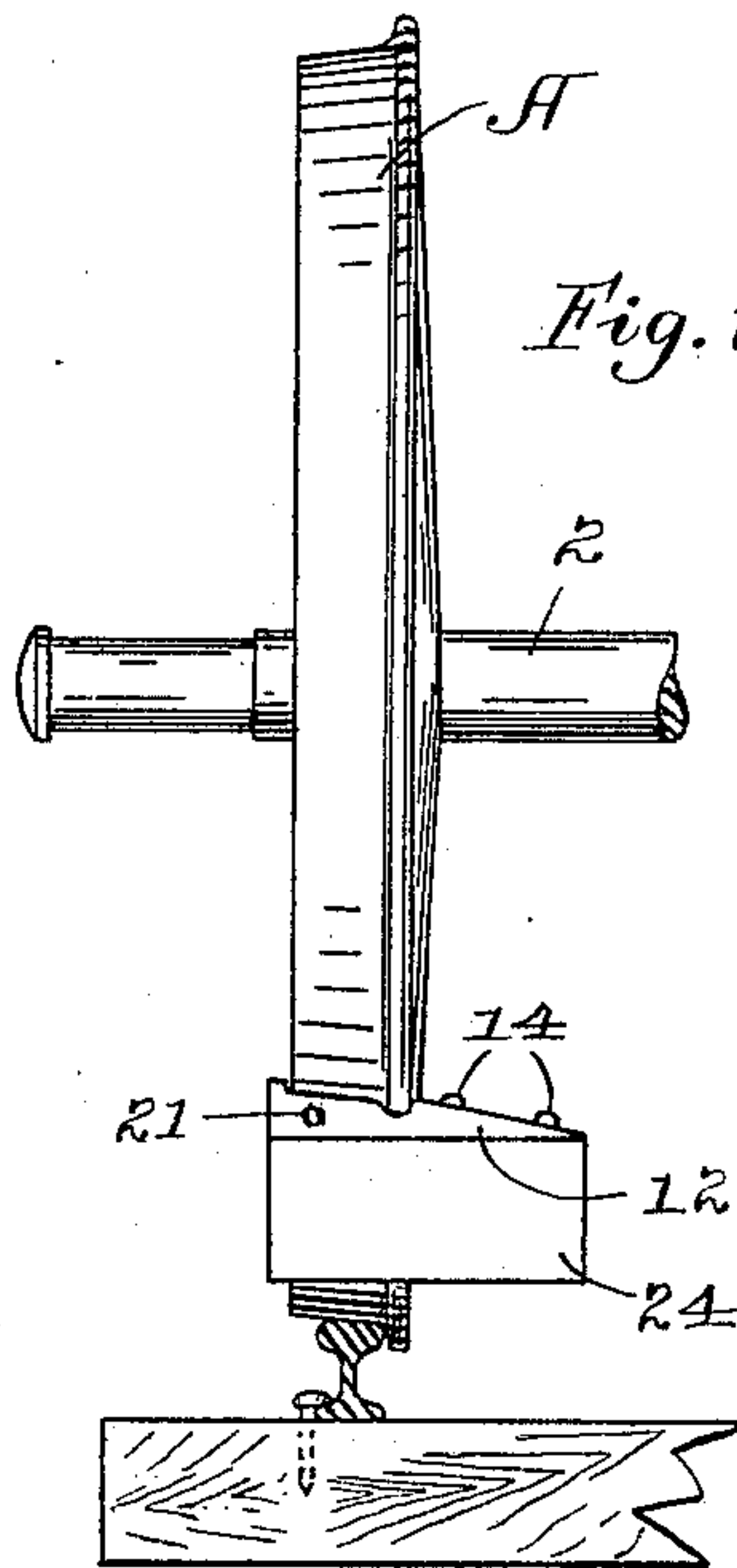
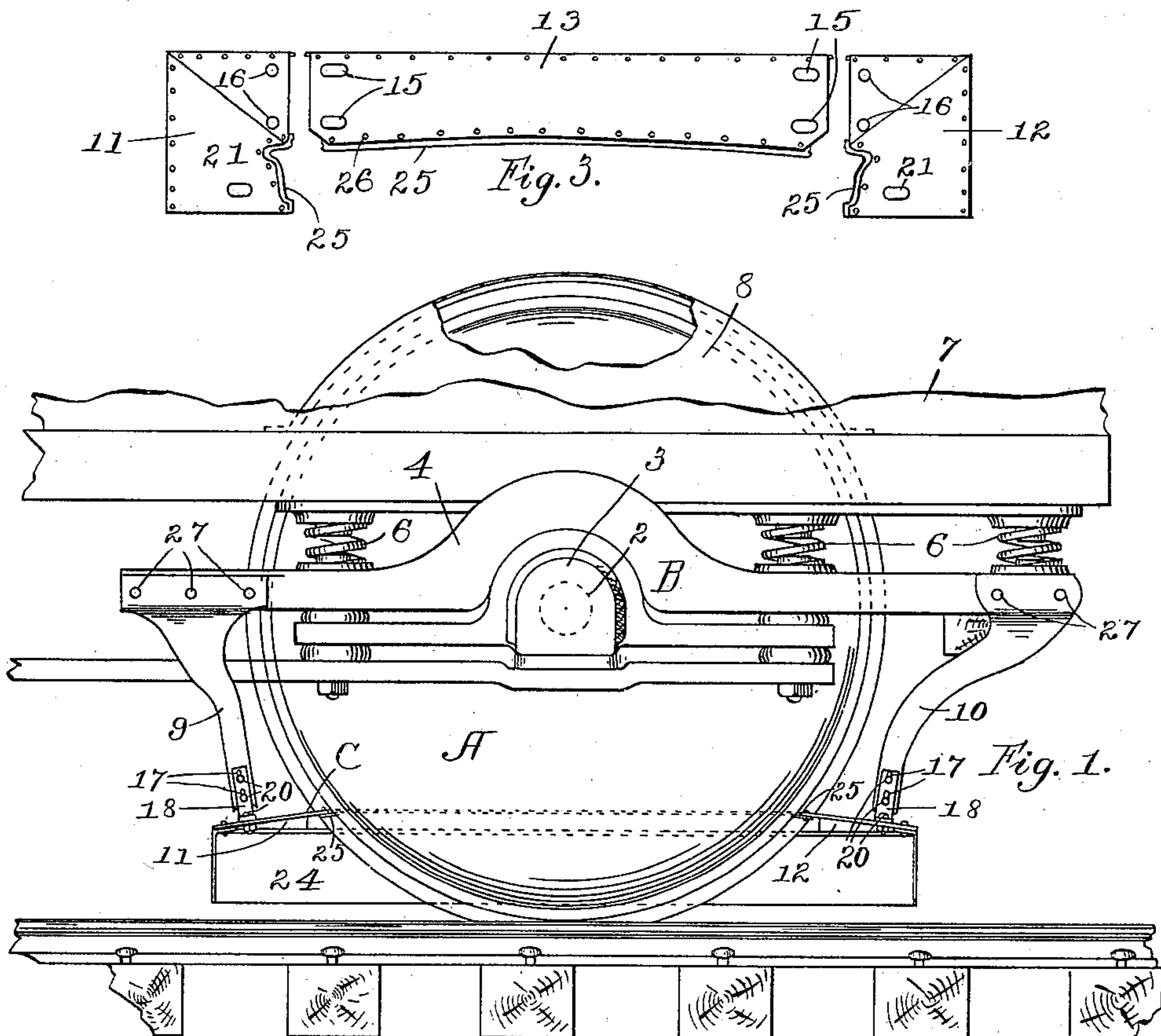
Patented Jan. 10, 1899.

J. P. MURPHY.

MUD GUARD FOR VEHICLE WHEELS.

(Application filed Oct. 18, 1897.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN P. MURPHY, OF ST. PAUL, MINNESOTA.

MUD-GUARD FOR VEHICLE-WHEELS.

SPECIFICATION forming part of Letters Patent No. 617,538, dated January 10, 1899.

Application filed October 16, 1897. Serial No. 656,375. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. MURPHY, of St. Paul, Ramsey county, State of Minnesota, have invented certain Improvements in Mud-Guards for Wheel-Vehicles, of which the following is a specification.

My invention relates to improvements in mud-guards for wheel-vehicles, adapted more especially to street-railway electric-motor cars.

The object of my invention is to provide means for catching all water, mud, snow, slush, and particles of dirt from the car-wheels caused by their centrifugal action, thereby preventing burn-outs in the motors.

Much annoyance has heretofore been caused in street-railway motor-cars from the packing of snow in their wheel-boxes, thereby forcing them loose and allowing the snow to gather in under the seats, frequently tearing them loose and causing much damage to the cars.

A further object is to provide an inexpensive and durable device to fulfil the requirements of the above and that may be readily applied to any of the different kinds and styles of vehicles and street-railway motor-trucks.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a car-wheel, showing a portion of the truck-frame with the wheel-box mounted thereon and my improved device fastened to the frame. Fig. 2 is an end view of the car-wheel, showing the guard in position with its supports removed. Fig. 3 is a plan view of the guard, showing its members separated and its means for longitudinal adjustment; and Fig. 4 is a detail view of a portion of one of the depending hangers.

A represents the car-wheel, mounted upon the truck B, with its axle 2 bearing in the journal-box 3 of the truck-frame 4. Mounted upon the car-frame in the usual manner with springs 6 is the car-body 7, having the wheel-box 8, surrounding the upper face of the wheel A.

Upon the frame B are mounted, by means of bolts 27, the depending hangers 9 and 10, the guard-plate C being made up of the end sections 11 and 12, adjustably connected to the middle section 13 by means of bolts 14, passing through the longitudinal slots 15 of

section 13 and bolt-holes 16 in sections 11 and 12.

In order to give vertical adjustment to my device, I provide the vertical slots 17 in the shoe portion 18 of the depending hangers, which shoe portions are fastened, respectively, to the sections 11 and 12 of the guard-plate C by means of the bolts 20, passing through slots 21 in the guard-plate C and slots 22 in the bottom portion 23 of the shoes 18, which allows of adjustability sidewise to the guard-plate C. The guard-plate C is constructed with a slight slant toward the ground and away from the wheel, and around its outer edge are fastened, by rivets or other suitable means, the curtains 24, made of canvas or other suitable material, to a distance of about two inches from the ground, thus giving ample protection from any and all flying particles thrown off of the wheels or drawn up by eddy currents of air caused by the movement of the car. The edge of the guard-plate C closest to the wheel is cut to conform to any irregularities or contours of the wheel and is preferably placed as close to the wheel as practicable, usually about one-eighth of an inch therefrom, and is provided with a leather flange 25, brushing against the wheel and fastened to the guard-plate C by rivets 26 or other suitable means, thus giving practically a dust and water proof protection to the motors from the wheels.

In the operation of my device all the water, mud, slush, snow, and dirt are caught upon the guard-plate C and prevented from flying upward into and around the working parts of the car or into the wheel-box, thereby giving thorough protection thereto from the same.

I claim—

1. In a device of the class described, a wheel having a guard-plate placed segmentally across its lower portion, with its edges conforming to the shape of the wheel, and surrounding its exposed surfaces, thereby adapted to scrape foreign material from the same, and supported in position by depending brackets, fastened to the framework of the car-truck.

2. In a device of the class described, a mud-guard having a protecting-surface, adapted to scrape foreign material from the exposed surfaces of the wheel, and supported in posi-

tion, cutting a lower circumferential arc, of the periphery of the wheel, by means of depending brackets, fastened to a portion of the frame of the car-truck, substantially rigid
5 with the wheel.

3. In a device of the class described, a mud-guard formed with its surface face, slanting toward the ground, and its inner edge cut to conform to the surface of the wheel, a de-
10 pending curtain fastened to the outer edge of said guard and the supporting-hangers fastened at their upper ends to the frame of the car-truck, and, at their lower ends to the mud-guard, substantially as described.

15 4. In a device of the class described, the combination of a segmentally-constructed guard-plate, adjustably supported, the supplemental means for catching mud, consisting of the curtain, supported from its outer
20 edge, and the flange on its inner edge, and the supporting means, whereby said guard is held in adjusted position.

5. In a device of the class described, the combination of a sectional plate of adjust-
25 able dimensions, supported by means of de-

pending arms, adjustably fastened thereto, said arms being connected to the framework of the truck, and fastened, at their lower ends, to the plate, and the supplemental means for protecting the motors from mud, 30 water, snow, &c., consisting of the depending curtain, fastened to the outer edges of the guard-plate, substantially as described.

6. In a device of the class described, the combination of the guard-plate of adjustable 35 dimensions, adjustably supported from the car-frame, by means of depending hangers; said guard-plate being adjustably secured thereto, at a slightly-inclined angle from the side of the car-wheel, and the supplemental 40 means, consisting of the depending curtain, fastened to the outer edges of the guard-plate, adapted, with the guard-plate, to catch mud, water, snow, &c., and prevent same from coming in contact with the working parts 45 of the vehicle.

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Witnesses:

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