J. M. CLANCY.

AIR ACTUATED STREET CAR FENDER.

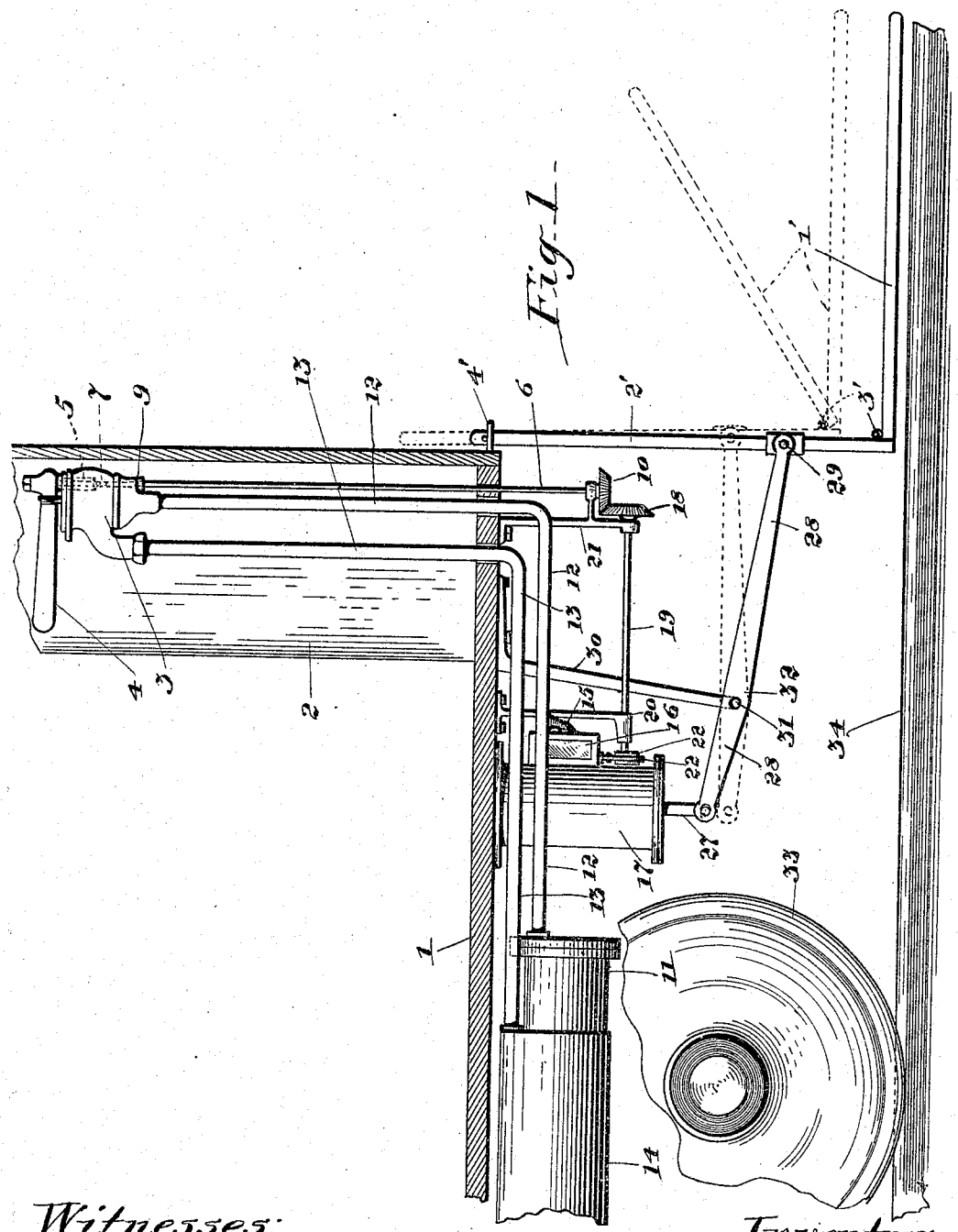
APPLICATION FILED DEC. 21, 1908.

941,497.

Patented Nov. 30, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

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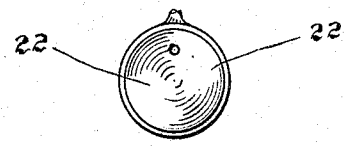

Fig. 3.

Fig. 2.

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UNITED STATES PATENT OFFICE.

JOHN M. CLANCY, OF CHICAGO, ILLINOIS.

AIR-ACTUATED STREET-CAR FENDER.

941,497. Specification of Letters Patent. Patented Nov. 30, 1909.

Application filed December 21, 1908. Serial No. 468,504.

To all whom it may concern:

Be it known that I, JOHN M. CLANCY, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Air-Actuated Street-Car Fenders, of which the following is a specification.

My invention relates to car fenders intended especially for use upon street cars provided with air-brake appliances, the object being to provide apparatus whereby the fender may be carried in its elevated position, as is desirable in city and suburban traffic, and from such a condition to be lowered into its operative position by its own weight when the engineer's or controlling valve of the brake appliances is actuated by the motorman.

With this object in view my invention consists in such a novel construction and arrangement of parts, all as will be hereinafter fully set forth and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a longitudinal section of a railway car embodying my invention. Fig. 2 is a detail side elevation, showing the principal novel parts, and Fig. 3 is a detail elevation, showing an eccentric.

Referring now to the drawings, 1 indicates the body of the car and 2 the dash thereon. The engineer's valve in the casing 3 is actuated by the usual lever 4, the valve stem 5 being rigidly connected to the vertically disposed rod 6, a squared portion 7 pressed securely into a squared perforation 8 forming the connection between said stem and said rod. A suitable packing at 9 may be provided in order to prevent leakage around the rod 6. Thus it will be seen that the rod 6 and the bevel-gear 10, secured thereon, will move each time the lever 4 is actuated by the motorman. The air reservoir 11 is connected by a suitably disposed pipe 12 to the engineer's valve 4, and the pipe 13 leads from said casing to the air-brake cylinder 14. A branch pipe 15 leads from the pipe 12 to the valve chamber 16 which is integral with the cylinder 17, and the bevel-gear 18, in mesh with the gear 10, is secured to the horizontally disposed shaft 19. Depending brackets 20 and 21 are rigidly fixed to the car body 1 and are adapted to carry the rod 6 and the shaft 19. At one end of the shaft 19 an eccentric 22 is secured, the same being adapted to actuate the slide valve rod 23. The slide valve 24 is so arranged that the cylinder port 25 is in connection with the exhaust port 26 when the valve rod 23 is at the limit of its down stroke. The integral piston and piston rod 27, will now rise because of the weight of the fenders 1′ and 2′ acting through the lever 28 which is pivoted to the fender 2′ at 29. A bracket 30 is secured to the car body 1 and is provided with a pivotal pin 31 adapted to engage the hole 32.

3′ indicates a hinge connection between the fenders 1′ and 2′.

4′ indicates a bracket serving as a guide for the fender 2′.

The connection of the rod 6 with the valve stem 5 is such that when the brakes are applied the fenders will drop into their lowest positions by gravity, and the same will be raised again by means of air pressure in the cylinder 17 when the brakes are released.

33 indicates a car wheel and 34 a rail, the relative positions of the fenders to the rail being clearly shown.

While I have shown what I deem to be the preferable form of my invention, I do not wish to be limited thereto, as there might be many changes made in the details of construction and arrangement of parts without departing from the spirit of my invention.

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

1. In apparatus of the character described, in combination with an air-brake engineer's valve in a car body, a vertically disposed rod rigidly connected to the valve stem of said valve and adapted to rotate therewith, a horizontally disposed shaft journaled in hangers or brackets secured to the car body, a bevel-gear secured with said rod and adapted to mesh with and to drive a bevel-gear secured to said shaft, a cylinder in communication with an air reservoir, a slide valve adapted to control the admission of air to said cylinder, an eccentric on said shaft adapted to actuate the slide valve rod, a piston in said cylinder, and means connected with said cylinder for operating a car fender arranged in front of the car body, substantially as shown and specified.

2. In apparatus of the character described, in combination with a car body equipped

with an air-brake system, a vertically disposed rod having a squared portion at its upper extremity adapted to fit snugly in a recess formed in the valve stem of the engineer's valve, a horizontally disposed shaft journaled in hangers or brackets provided therefor and secured to the car body, a bevel-gear connection between said rod and said shaft, an eccentric secured to one extremity of said shaft adapted to operate a slide valve provided in connection with a cylinder, an air supply pipe for the slide valve chamber, a piston in said cylinder in connection with an oscillating lever pivoted to the car fender and adapted to elevate the same when acted upon by air pressure, and said rod being connected to said valve stem in such a manner that when the brakes are released the car fender will be in its highest position, substantially as shown and specified.

3. In apparatus of the character described, a car body and a bracket or hanger secured thereto and depending therefrom, an oscillating lever provided with a perforated portion adapted to engage a portion of said hanger, a vertically-movable car fender pivoted to and adapted to be operated by said lever, a cylinder and piston disposed beneath the car body, the piston rod being pivoted to said lever, a compressed air supply, means for admitting air to said cylinder for actuating said piston in order to raise said fenders, and means for exhausting said cylinder in order that said fender may fall by means of its own gravity, substantially as shown and specified.

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

JOHN M. CLANCY.

Witnesses:
HELEN F. LILLIS,
JANET E. HOGAN.