No. 758,391. PATENTED APR. 26, 1904.

J. SHELTON.

CAR BRAKE MECHANISM.

APPLICATION FILED JULY 31, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

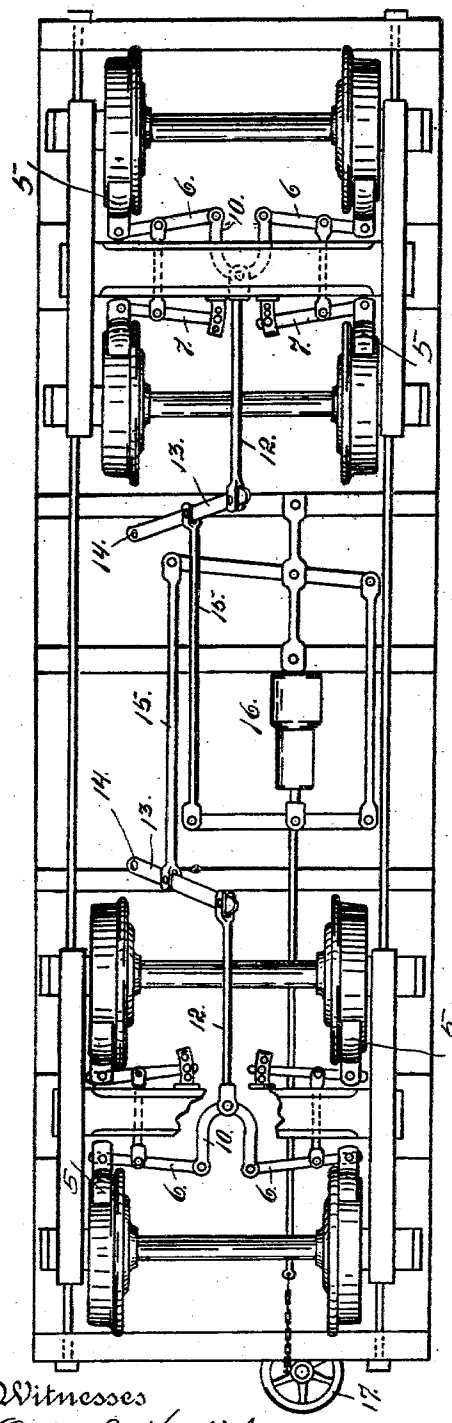


Fig. 1.

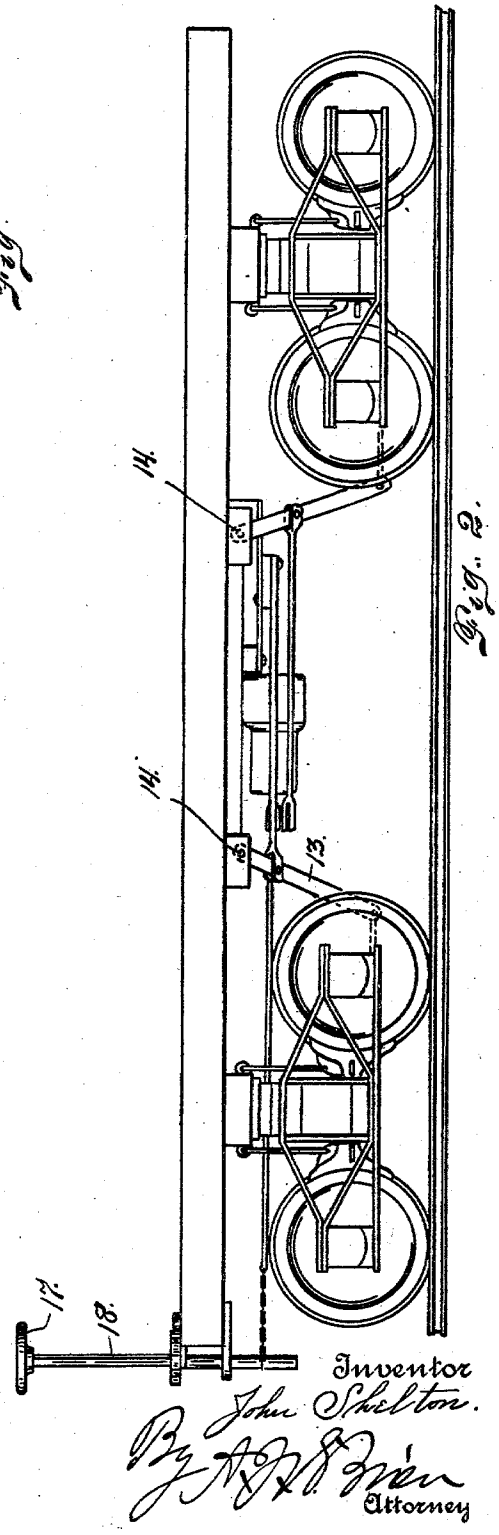


Fig. 2.

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NO MODEL. 2 SHEETS—SHEET 2.

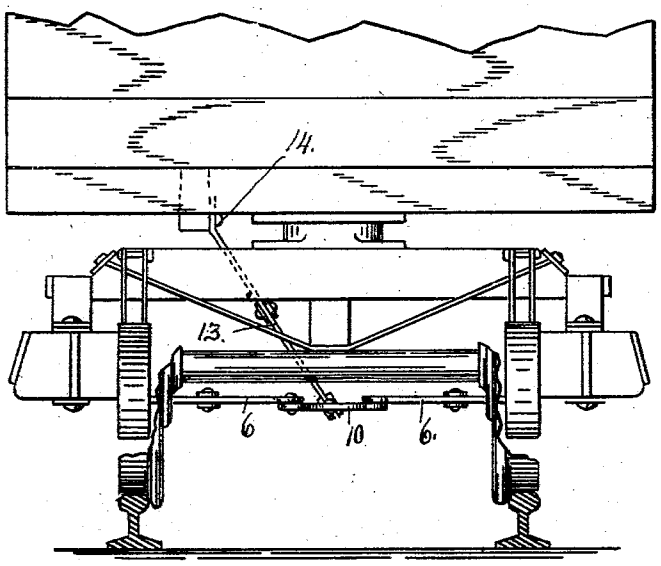


Fig. 3.

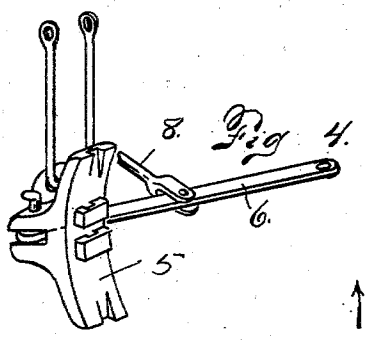


Fig. 4.

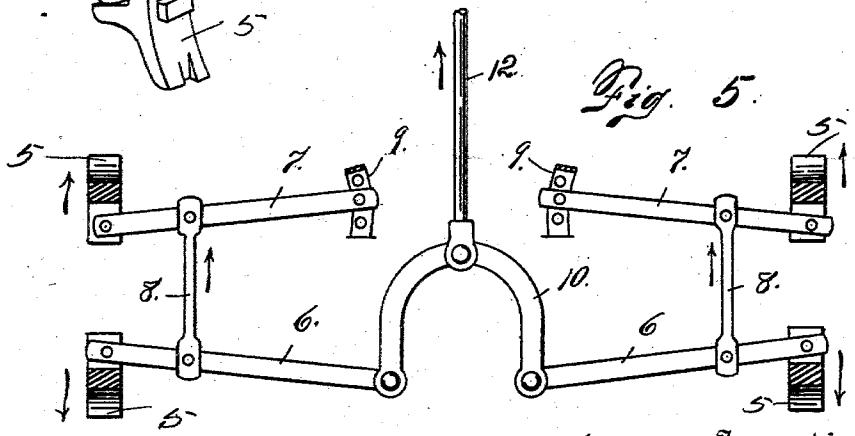


Fig. 5.

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No. 758,391. Patented April 26, 1904.

UNITED STATES PATENT OFFICE.

JOHN SHELTON, OF DENVER, COLORADO.

CAR-BRAKE MECHANISM.

SPECIFICATION forming part of Letters Patent No. 758,391, dated April 26, 1904.

Application filed July 31, 1903. Serial No. 167,774. (No model.)

To all whom it may concern:

Be it known that I, JOHN SHELTON, a citizen of the United States of America, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Car-Brake Mechanism; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in beamless car-brake mechanism, my object being to provide a thoroughly practicable construction of this class which shall at the same time be comparatively simple in construction; and to this end the invention consists of the features, arrangements, and combinations hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, with which is illustrated an embodiment thereof.

In the drawings, Figure is an underneath view of a car equipped with my improved beamless brake mechanism. Fig. 2 is a side elevation of the same. Fig. 3 is an end view of a car equipped with the mechanism, the wheels being partly broken away to disclose the shoes or brake-heads, which are inside connected or located between the wheels. Fig. 4 is a perspective view in detail, showing a brake-shoe and the lever connected therewith. Fig. 5 is a plan view illustrating the brake-shoes and lever connections.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the brake shoes or heads, with which are pivotally connected the live-levers 6 and the dead-levers 7. These levers all occupy a horizontal position below the wheel-axles. Each pair of levers, composed of one live-lever and one dead-lever on each side of each truck, is connected by a rod 8, located inside the vertical plane of the wheels. The extremities of each rod 8 are pivotally connected with the levers 6 and 7 of each pair. The levers 6 and 7 project inwardly from the car-wheels. The inner extremity of lever 7 is pivotally connected with a depending bracket 9, suitably connected at its upper extremity with the bolster of the car-truck. This bracket is provided with a number of openings whereby the position of the lever 7 may be adjusted or regulated as desired.

The inner extremities of each pair of live-levers 6 belonging to the same truck are connected with a yoke 10, to whose central portion is connected one extremity of a rod 12, whose opposite extremity is pivotally connected with the lower extremity of an inclined lever 13, whose upper extremity is pivotally connected with the car-body, as shown at 14. Pivotally connected with the central part of each lever 13 is a top rod 15, which is actuated from the brake-cylinder 16 through the medium of any suitable connections.

I desire to call especial attention to the fact that the dead-levers 7 are at the inner ends of each truck and are used to press the brake-shoes against the inner pair of wheels of each truck, whereas the live-levers 6 are at the outer sides of each truck and are used to press the brake-shoes against the outer pair of wheels of each truck, and that the connecting-rod 12 is connected by the yoke 10 to the inner ends of the live-levers 6, said connecting-rod passing toward the center of the car between the fixed ends of the dead-levers 7. By this means the live-levers 6 are operated with a straight horizontal pull.

From the foregoing description it will be understood that as the brake-rod 15 is actuated the inclined lever 13 is operated, whereby power is applied to the levers 6 and 7, with the result that the brake-heads are forced toward the wheels and the shoes applied thereto with the necessary pressure for brake-setting purposes. The brake mechanism may be operated by hand through the instrumentality of the ordinary brake-wheel 17, mounted on a shaft 18, journaled in the car and suitably connected with the brake-setting devices. By reason of my improved mechanism it may be observed that the movement of the brake-shoes is such as to prevent them from slipping

off the treads of the wheels, since the tendency is rather to move them toward the wheel-flanges.

Having thus described my invention, what I claim is—

1. In a car-brake mechanism, the combination with the brake-heads, of horizontal dead-levers at the inner end of the truck, horizontal live-levers at the outer end of the truck, said levers being connected to the brake-heads, a rod connecting each pair of levers composed of one live-lever and one dead-lever on each side of the car, and a rod connected to the inner ends of the live-levers and passing toward the center of the car between the fixed ends of the dead-levers; and an inclined lever connected at its upper end to the body of the car, and at its lower end to said rod, and a brake-rod connected to the inclined lever intermediate of its extremities, substantially as specified.

2. In car-brake mechanism the combination with the brake-heads, of horizontal live and dead levers connected with the brake-heads and extending inwardly transversely toward the center of the car, a rod connecting each pair of levers composed of one live-lever and one dead-lever on each side of the car, a yoke connected with the inner extremities of the live-levers of each truck, a rod connected with the yoke, an inclined lever connected with the said rod remote from the yoke, and a brake-rod connected with the inclined lever.

3. In a car-brake mechanism, the combination with the brake-heads, of horizontal dead-levers at the inner end of the truck, horizontal live-levers at the outer end of the truck; rods connecting the central portions of each pair of levers composed of one live-lever and one dead-lever on each side of the car; a yoke connected with the inner extremities of the live-levers; a rod connected to the yoke and extending toward the center of the car between the fixed ends of the dead-levers; and an inclined lever connected at its upper end to the body of the car, and at its lower end to said rod, and a brake-rod connected to the inclined lever intermediate of its extremities; substantially as specified.

4. In car-brake mechanism, the combination with the brake-heads, of horizontally-disposed live and dead levers connected with the brake-heads and extending transversely toward the center of the car, a rod connecting said levers, a depending bracket with which the inner extremity of each dead-lever is connected, a yoke connecting the inner extremities of the live-levers of each truck, a longitudinal rod connected with the yoke, an inclined lever whose lower extremity is connected with the said rod remote from the yoke, the upper extremity of said rod being connected with the body of the car, and a brake-rod connected with the inclined lever intermediate its extremities.

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

JOHN SHELTON.

Witnesses:

EBERT O'BRIEN,

O. E. HODDICK.