

No. 719,148.

PATENTED JAN. 27, 1903.

J. SHELTON.
CAR BRAKE MECHANISM.
APPLICATION FILED MAR. 17, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

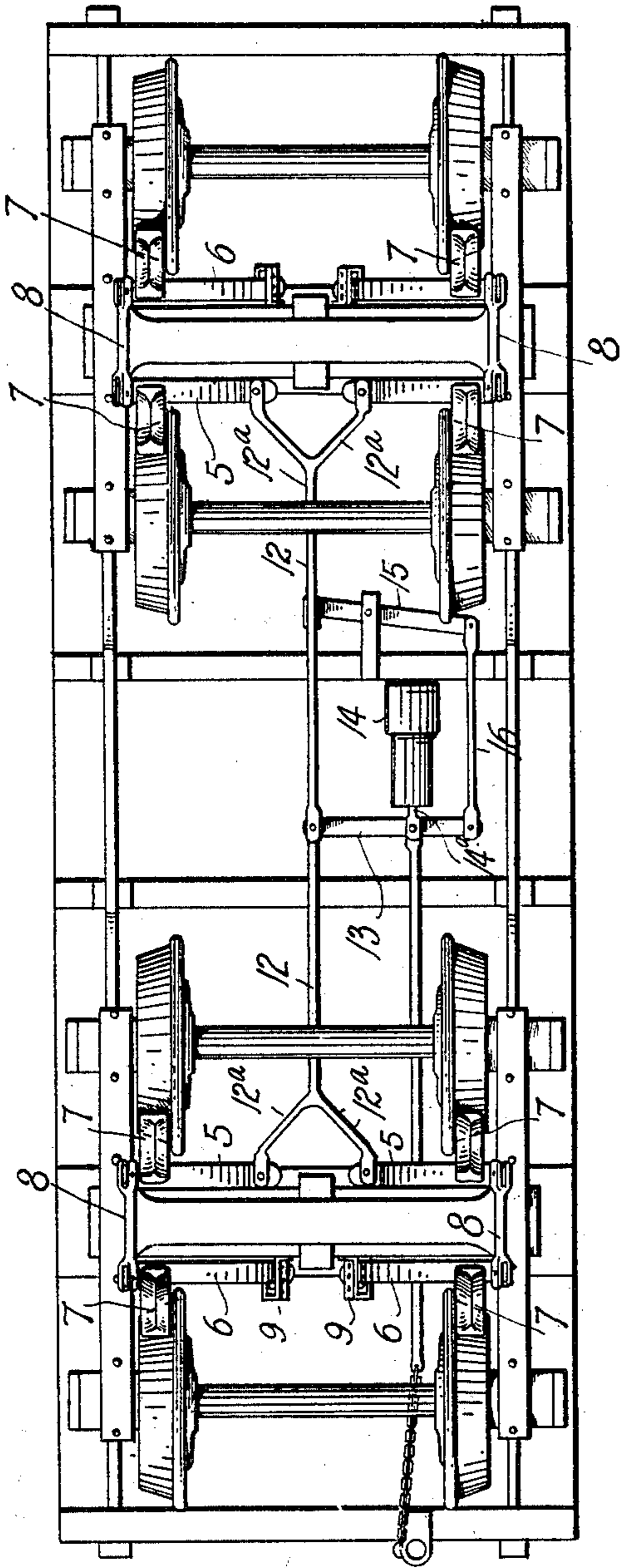


FIG. 1.

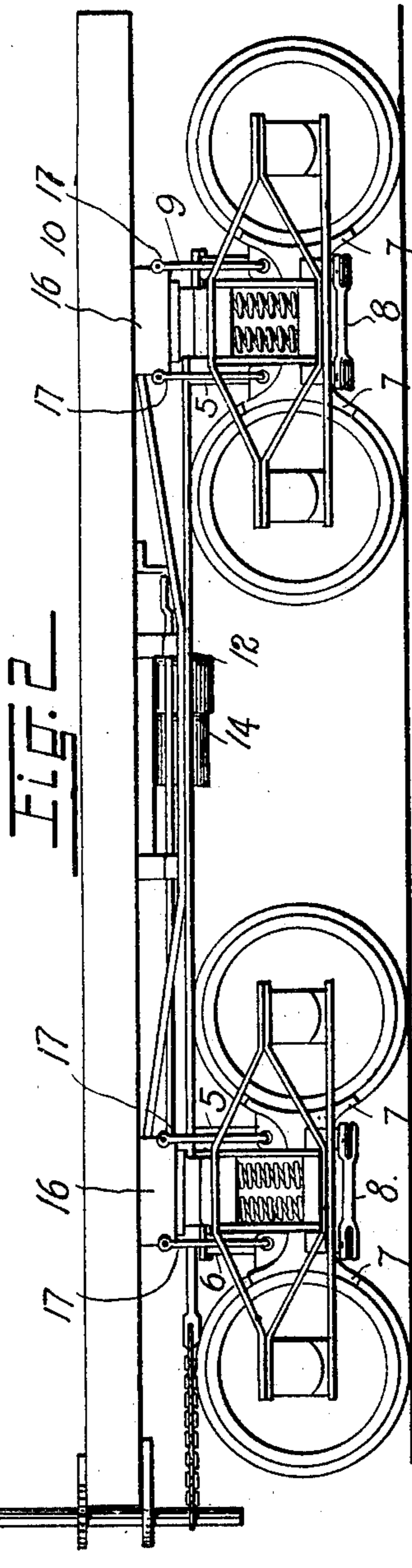


FIG. 2.

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2 SHEETS—SHEET 2.

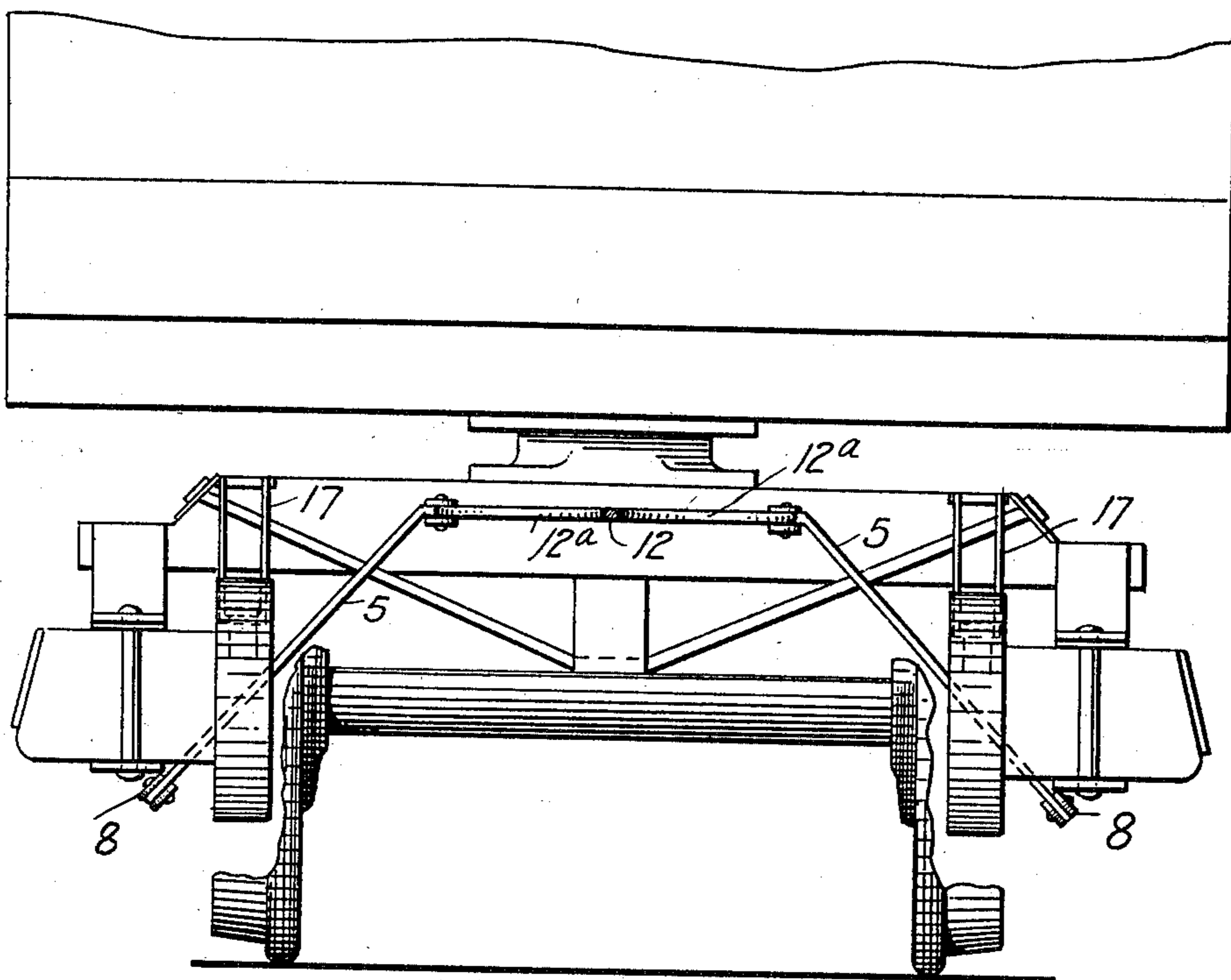


FIG. 3.

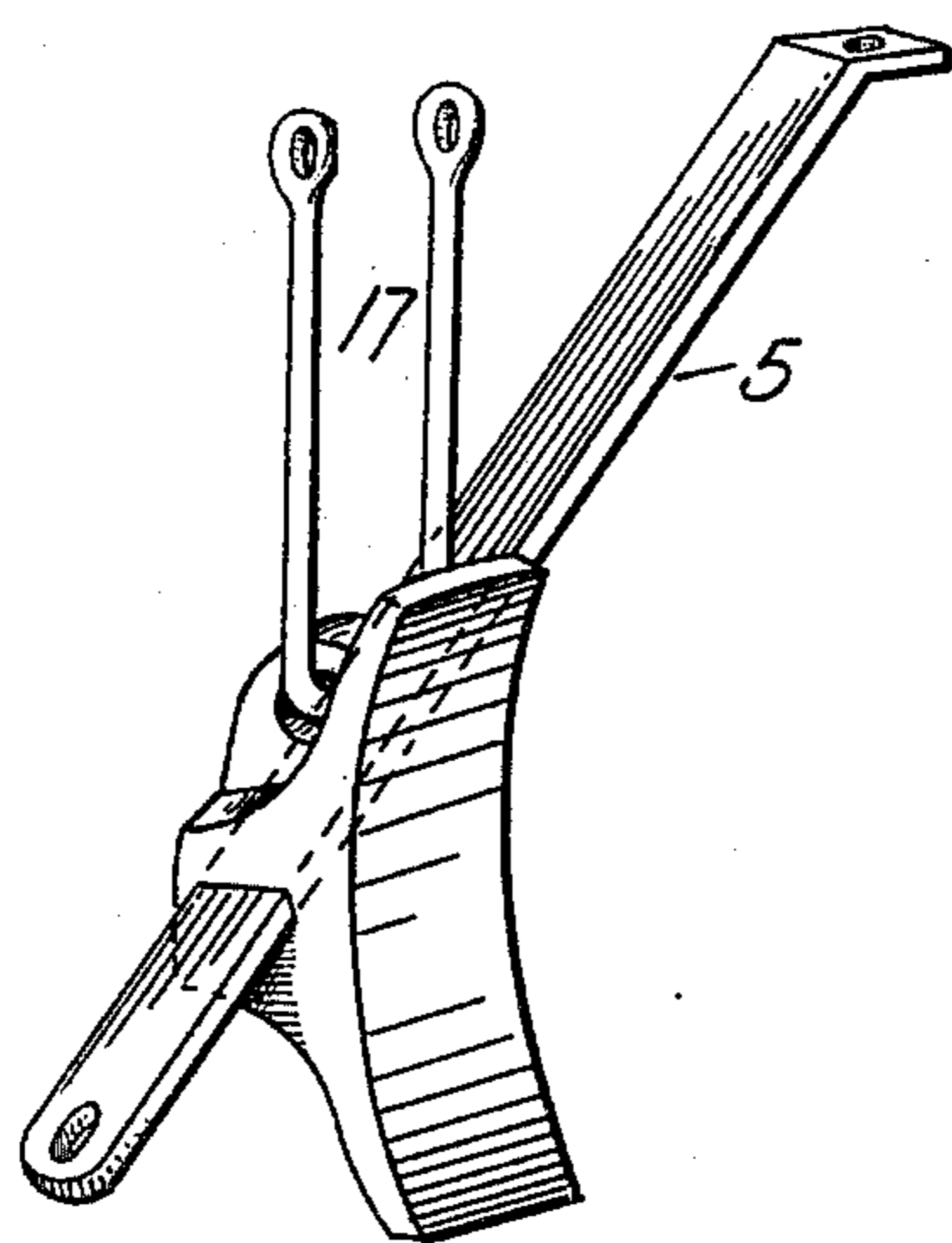


FIG. 4.

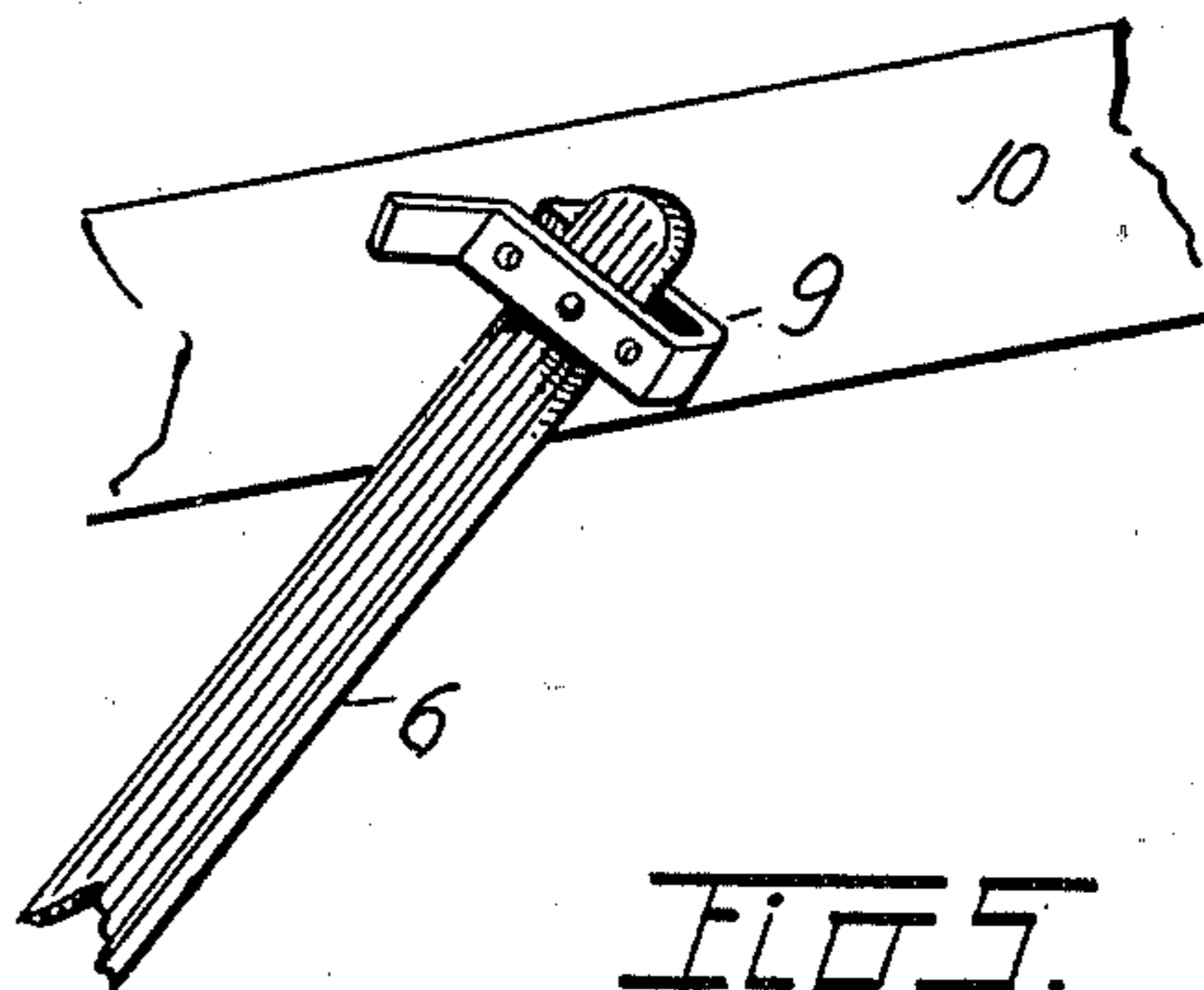


FIG. 5.

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UNITED STATES PATENT OFFICE.

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CAR-BRAKE MECHANISM.

SPECIFICATION forming part of Letters Patent No. 719,148, dated January 27, 1903.

Application filed March 17, 1902. Serial No. 98,640. (No model.)

To all whom it may concern:

Be it known that I, JOHN SHELTON, a citizen of the United States of America, residing at Denver, in the county of Arapahoe 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 improvements in car-brake mechanism, my object being to provide a brake construction in which brake-beams for supporting the shoes are not employed, thus doing away with a fruitful source of accidents. The ordinary brake-beams sometimes become loose and fall upon the track, derailing the car. With my improved construction the connections and appliances are located well above the track to prevent them from coming in contact with objects thereon.

My further object is to provide a beamless brake mechanism which shall be exceedingly simple in construction, economical in cost, reliable, durable, and efficient in use; and to these ends 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, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a bottom view of a car equipped with my improved construction. Fig. 2 is a side elevation of the same. Fig. 3 is an inside end view, the wheels being partly broken away to better disclose the features of my improvement. Fig. 4 is a perspective view of a brake-shoe mounted upon the live-lever of my improved construction. Fig. 5 is a perspective view of the upper portion of the dead-lever.

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

Let the numeral 5 designate the live-lever, and 6 the dead-lever, of my improved mechanism. Made fast to each of these levers intermediate its extremities is a brake-shoe

7. As shown in the drawings, the shoe is provided with an inclined slot, through which the lever passes and in which the latter is made fast. The lower extremities of the levers 5 and 6 are pivotally connected by a rod 8. The upper extremity of the lever 6 passes through a guide-bracket 9, attached to the truck-bolster 10. This lever extremity is held in the bracket by a pin or bolt and is adjustable to take up the slack of the brake-shoes, the said bracket being provided with extra openings for the purpose.

The upper extremity of each lever 5 is pivotally connected with a brake-rod 12, which is bifurcated at its outer extremity, its arms being suitably connected with the upper extremities of the two live-levers 5 belonging to the same truck. One of the brake-rods 12 is connected at its inner extremity with the ordinary cylinder-lever 13 of an air-brake system, as the Westinghouse. This lever is actuated by the piston of the brake-cylinder 14, which also is of ordinary construction. The other brake-rod 12 is connected with a lever 15, usually termed the "floating" lever of an air-brake system. The levers 13 and 15 are connected by a rod 16.

The brake-shoes are suspended from a bottom bar 16 of the car by U-shaped hangers 17.

From the foregoing description the use and operation of my improved air-brake mechanism will be readily understood. As the piston of the brake-cylinder is forced outwardly its stem 14^a, acting on the lever 13 and on the lever 15, through the connecting-rod 16 actuates the brake-rods 12 and forces the shoes 7 against the treads of the car-wheels, as will be readily understood.

Having thus described my invention, what I claim is—

1. In a car-brake, the combination with the brake-shoes, of live and dead levers upon which said brake-shoes are mounted and made fast, each shoe being located intermediate the extremities of its lever which occupies a position obliquely to the plane of the shoe which is slotted to receive the lever, a rod connecting each pair of levers composed of one live-lever and one dead-lever below the shoes and outside of the car-wheels, and suitable means connected with the upper ex-

termities of the live-levers for applying the brakes.

2. In car-brake mechanism, the combination with brake-shoes, and means for suspending the same from the bottom of the car, of
5 live and dead levers upon which the shoes are mounted and made fast intermediate the lever extremities, the said levers extending obliquely to the vertical plane of the shoes
10 which are slotted to receive the levers, a rod connecting each live-lever with its adjacent dead-lever below the shoes and outside of the car-wheels, a guide within which the upper extremity of each dead-lever is adjustably
15 mounted, and a rod connecting the upper extremities of the live-levers of each truck with the brake-operating devices, substantially as described.

3. In car-brake mechanism, the combination with the brake-shoes, and means for suspending them from the bottom of the car, of

live and dead levers upon which the shoes are mounted, each shoe being obliquely slotted to receive its lever and made fast thereto intermediate the lever extremities, the levers
25 extending obliquely to the vertical plane of the shoes, a rod connecting the extremities of the two levers below the shoes and outside of the car-wheels, a guide attached to the car-bolster, in which guide the upper extremity
30 of the dead-lever is adjustably mounted, and suitable means located between the car-wheels for connecting the upper extremities of the live-levers with suitable brake-operating devices, substantially as described. 35

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

JOHN SHELTON.

Witnesses:

DENA NELSON,
A. J. O'BRIEN.