

(No Model.)

W. L. REYNOLDS.
BRAKE FOR ELEVATED RAILWAYS.

No. 510,292.

Patented Dec. 5, 1893.

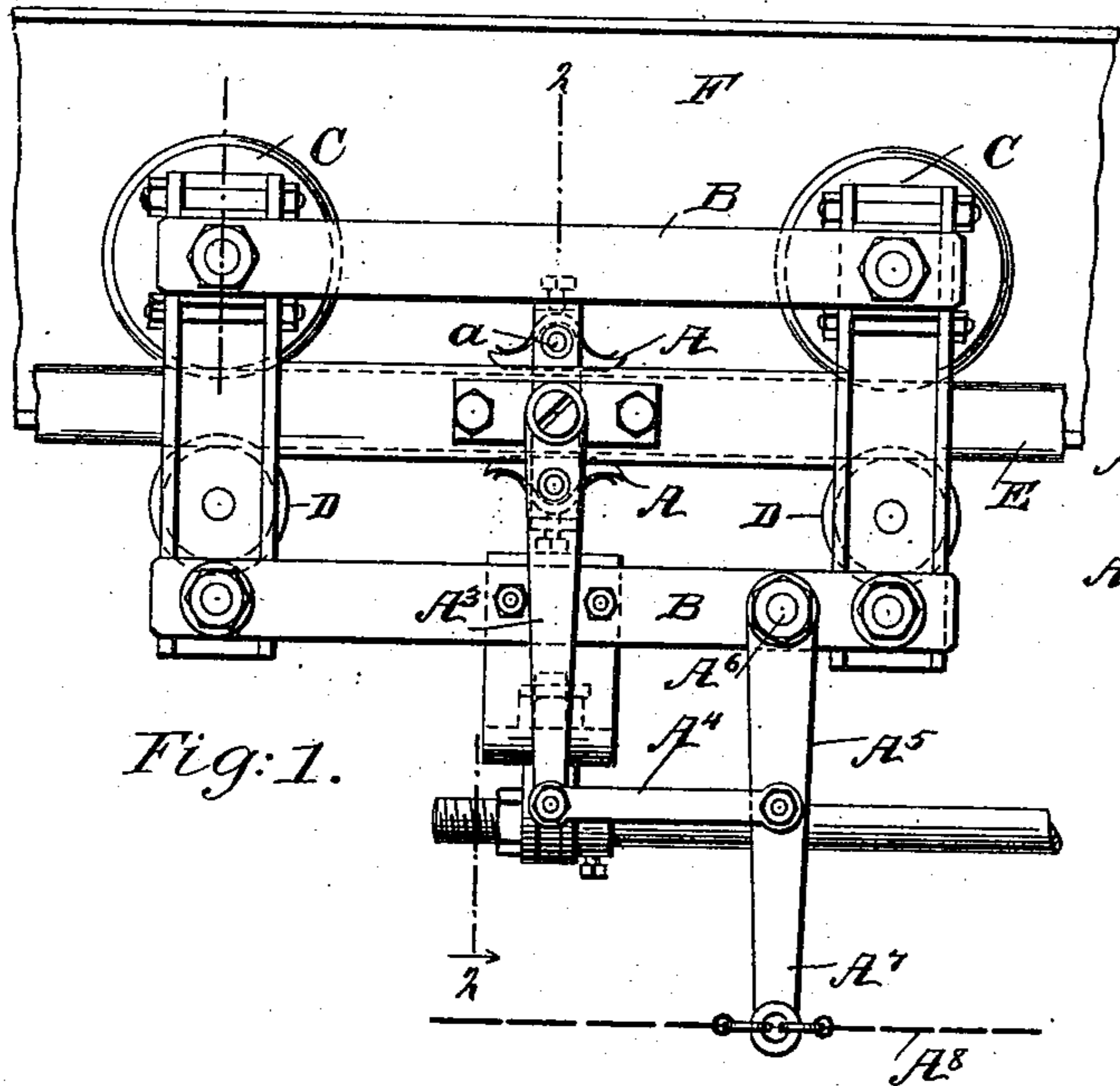


Fig. 1.

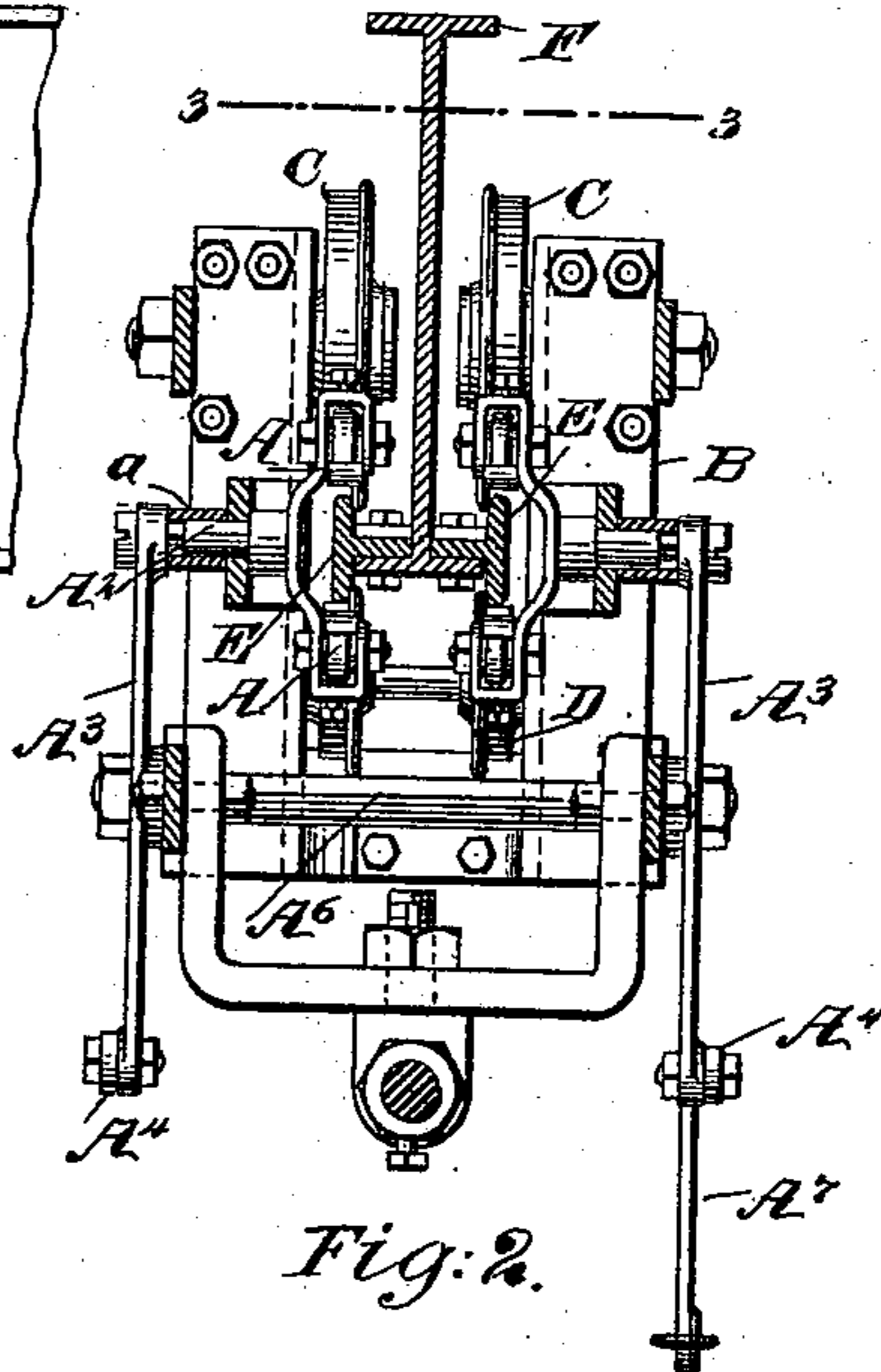


Fig. 2.

Fig. 3.

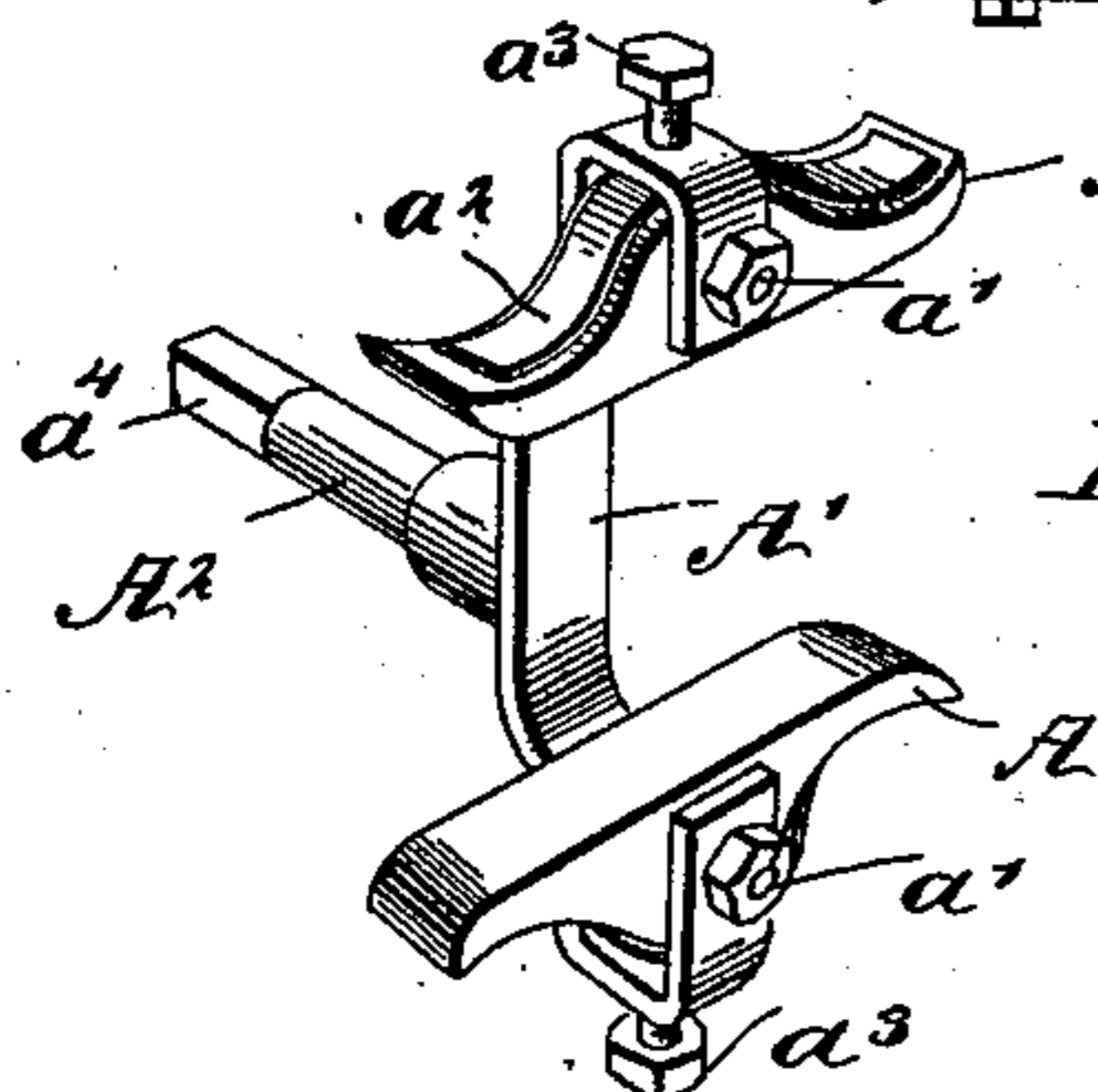
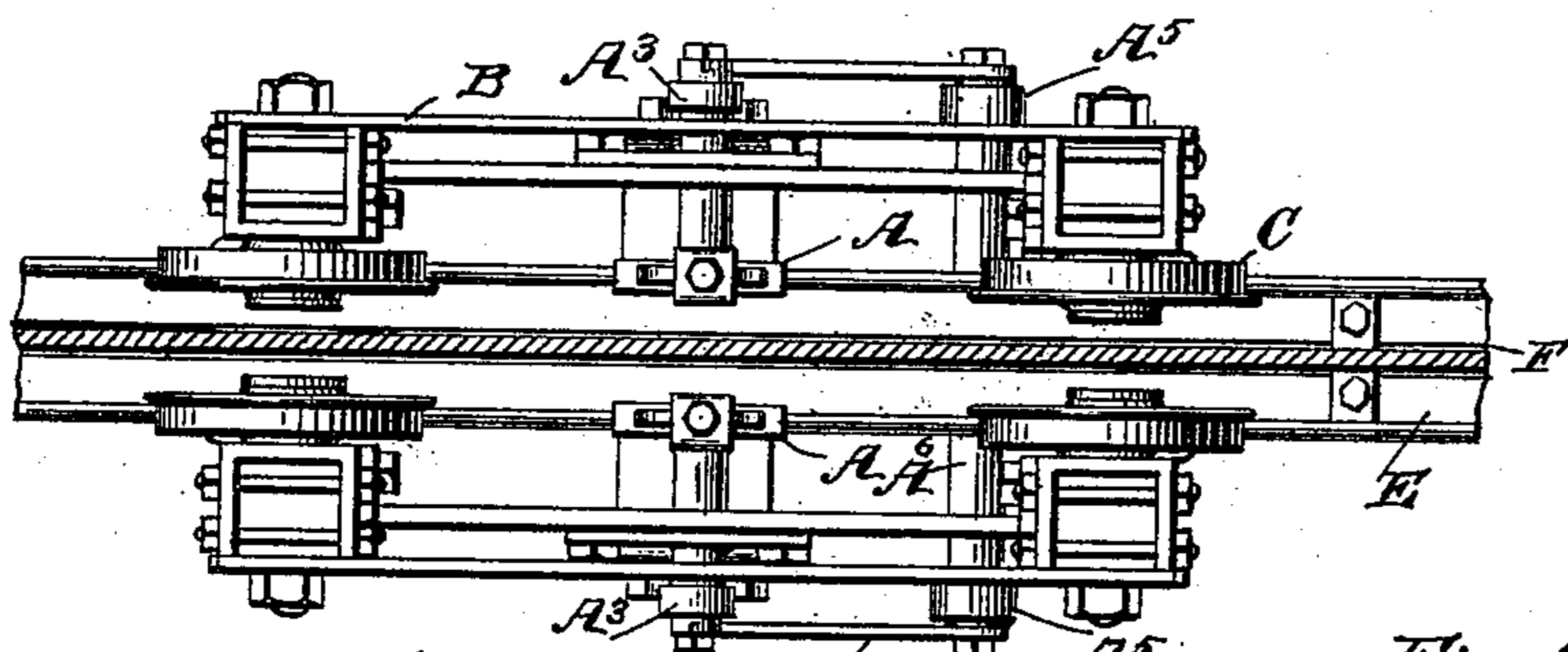
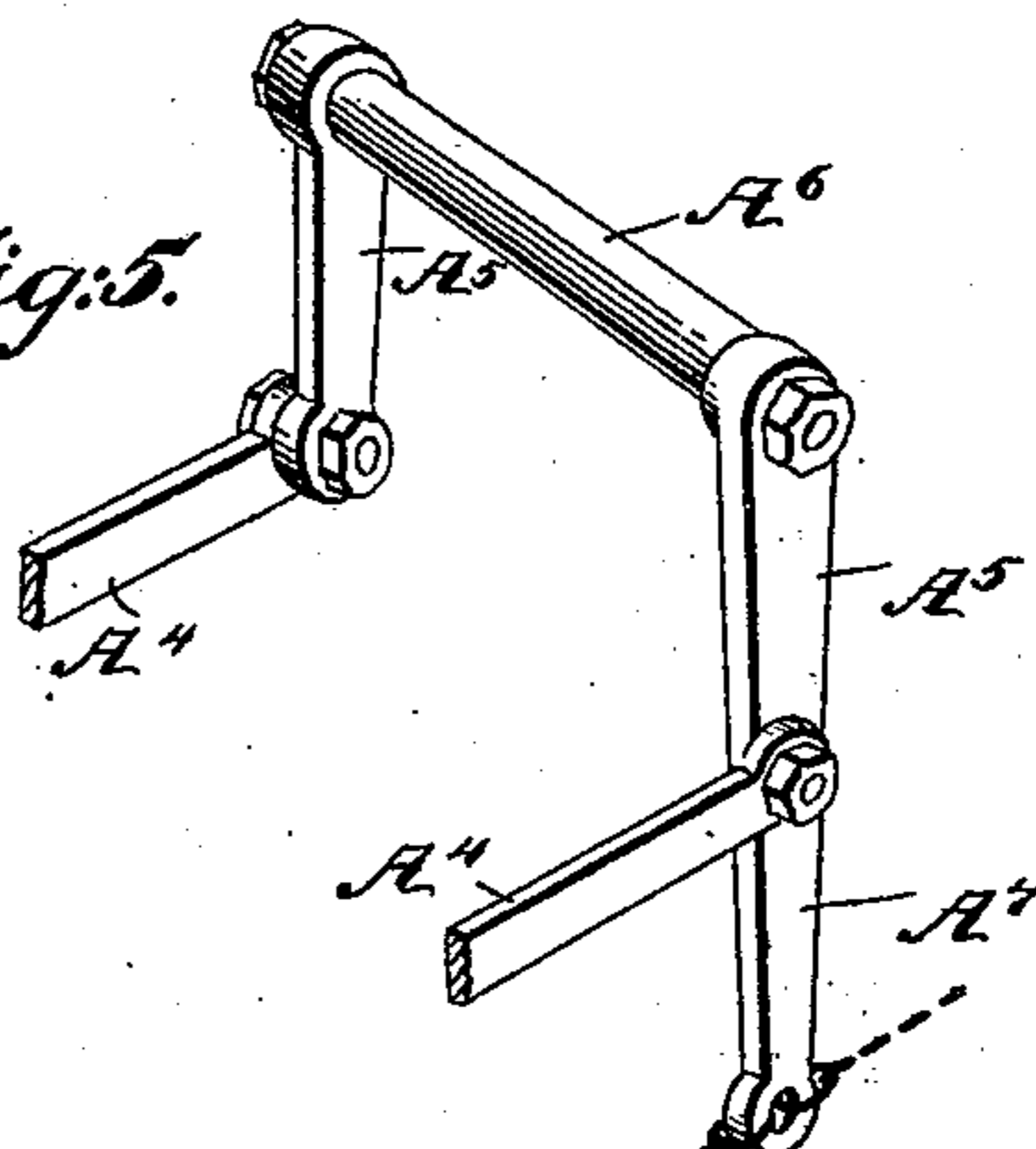


Fig. 4.

Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WATSON L. REYNOLDS, OF JERSEY CITY, NEW JERSEY, ASSIGNOR TO JOHN N. VALLEY, OF SAME PLACE.

BRAKE FOR ELEVATED RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 510,292, dated December 5, 1893.

Application filed March 29, 1893. Serial No. 468,135. (No model.)

To all whom it may concern:

Be it known that I, WATSON L. REYNOLDS, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Brake for Elevated Railways, of which the following is a full, clear, and exact description.

The object of the invention is to provide an improved brake, especially adapted for use on elevated railways, and which will have an improved gripping action on the track rails, as hereinafter particularly described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a carriage provided with my improved brake, and a portion of the track, the carriage being designed for suspending a car. Fig. 2 is a transverse sectional elevation, the section being taken substantially on the line 2—2, Fig. 1. Fig. 3 is a plan view, the track being in section on line 3—3, Fig. 2. Fig. 4 is a detail perspective view, on a large scale, illustrating one pair of brake shoes; and Fig. 5 is a detail perspective view showing certain details of the brake operating devices.

The carriage and the track and rails form no part of the present invention. Their construction is briefly as follows: The carriage comprises a frame work B, running wheels C, and the safety wheels D, of which the running wheels C, ride on the track rails E, while the wheels D travel beneath such rails. The rails E, as shown, are T-shaped in cross-section, the T-head being disposed vertically, and the stem of the T being secured to the lower flanges on the I-beam F, of the track, one of the rails E being thus located at each side of such beam.

The brake shoes A, are arranged in pairs, as best shown in Fig. 4, to bear upon the top and bottom of the rails E, which may be of any suitable form other than that shown. The shoes are pivotally secured in pairs to a bracket or yoke A', secured to a rock shaft A², the shaft having bearings in the frame B at each side of the track, as at a. The yokes

A' are each bent into U-shape at top and bottom to receive the shoes A, and the pivot bolts a' are passed through such yokes and loosely through the shoes. At the back of each brake shoe a bowed plate spring a² is placed between the shoe and the bend of the U-shaped terminal of the yoke, and a set screw a³ threaded into the yoke is adapted to bear on the spring at about its center, thus causing the ends of the spring to press on the back of the shoe at each side of the pivot, thereby maintaining the shoes in parallel and permitting them to yield and accommodate themselves to the rail when the yokes are rocked as hereinafter explained. To the squared outer ends a⁴ of each rock shaft A², is secured the upper end of an arm A⁵, and to the lower ends of each arm A⁵, there is secured one end of a link A⁴, the opposite ends of such links being secured to the arms A⁵ of the shaft A⁶, which extends transversely through the frame B, one of the arms A⁵ being extended downward beyond its link A⁴ to provide a lever A⁷ for throwing the lever mechanism described and thus by the rocking of shafts A², causing the shoes A to bear firmly against the top and bottom of the rail.

Any suitable means may be employed for throwing lever A⁷, such as a chain A⁸ leading in practice over suitable rollers (not shown) to the car platforms, to be actuated by the attendant in any suitable manner.

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

1. In a railway brake, brake shoes arranged in pairs, pivotally supported from a common rock shaft and spaced apart to embrace a track rail, and means for rocking the shaft, the rocking of the said brake-shoe shaft serving to apply and release the brakes, substantially as described.

2. In a railway brake, a brake shoe pivotally supported from a rock shaft, for operation against a track rail, and having a plate spring bearing by its ends on the back of the shoe, the rocking of the said brake-shoe shaft serving to apply and release the brakes, substantially as described.

3. In a railway brake, the combination of rock shafts having fixed yokes thereon, brake shoes pivoted in pairs in said yokes, and spaced apart to embrace a track rail arms
5 on said rock shafts, a second shaft also having arms, one of which is extended to form a lever, and links connecting the latter named arms to the first named ones, substantially as described.

WATSON L. REYNOLDS.

Witnesses:

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