

No. 763,134.

PATENTED JUNE 21, 1904.

E. WILLIAMS.  
CAR BRAKE.

APPLICATION FILED APR. 2, 1904.

NO MODEL.

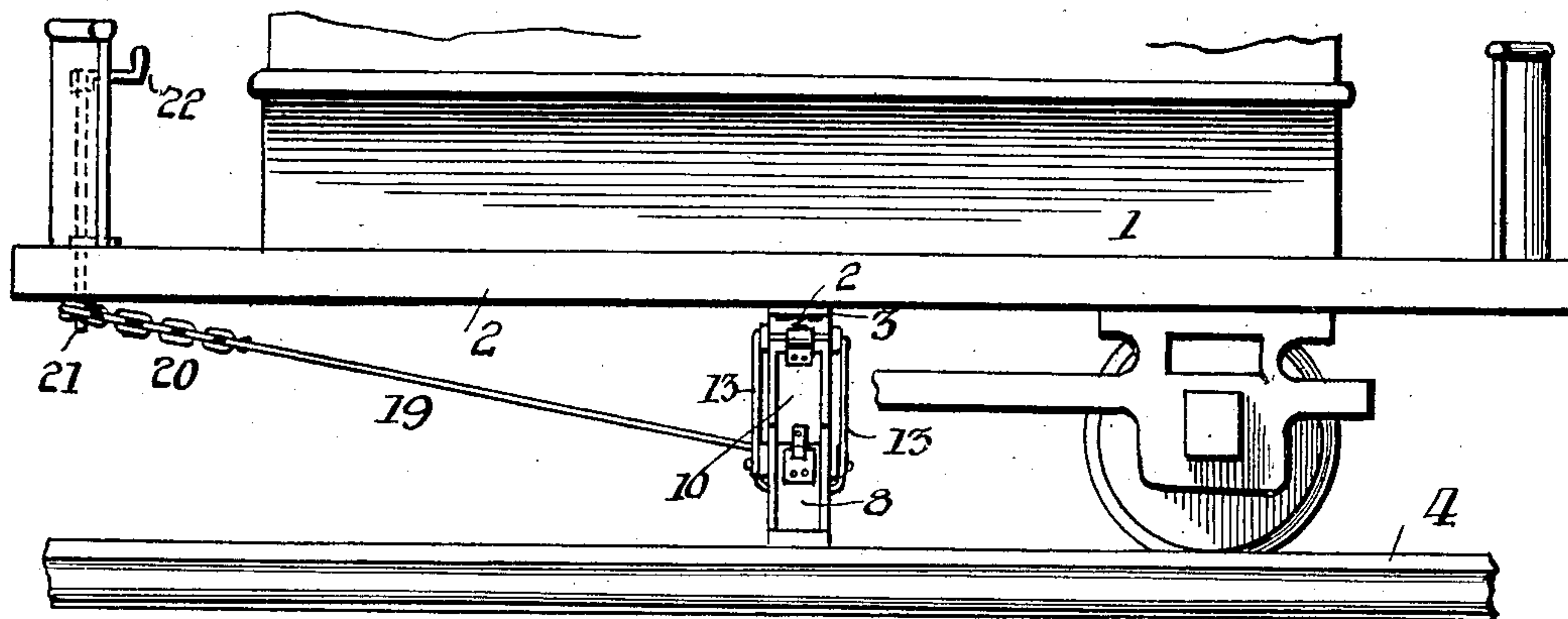


Fig. 1.

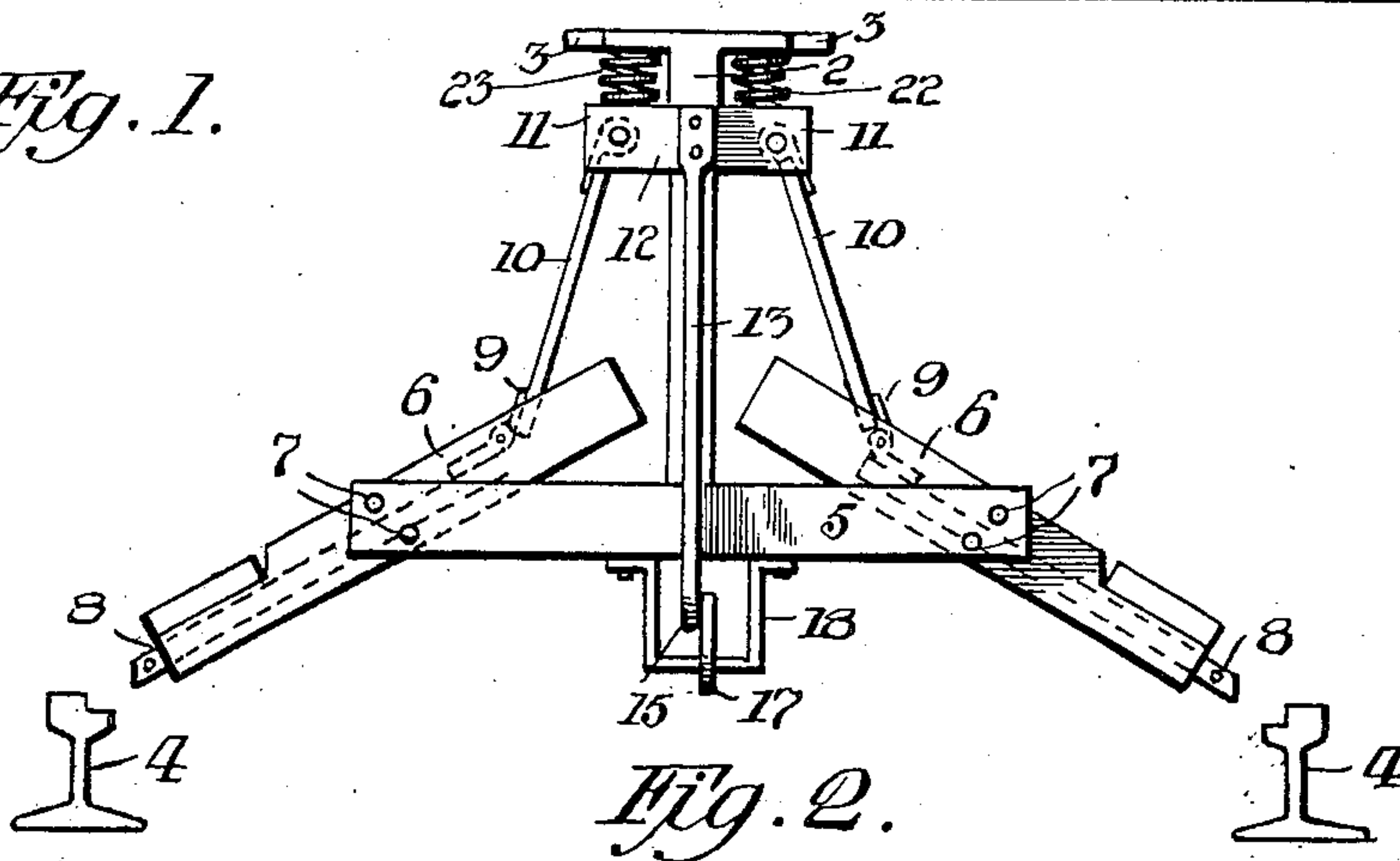


Fig. 2.

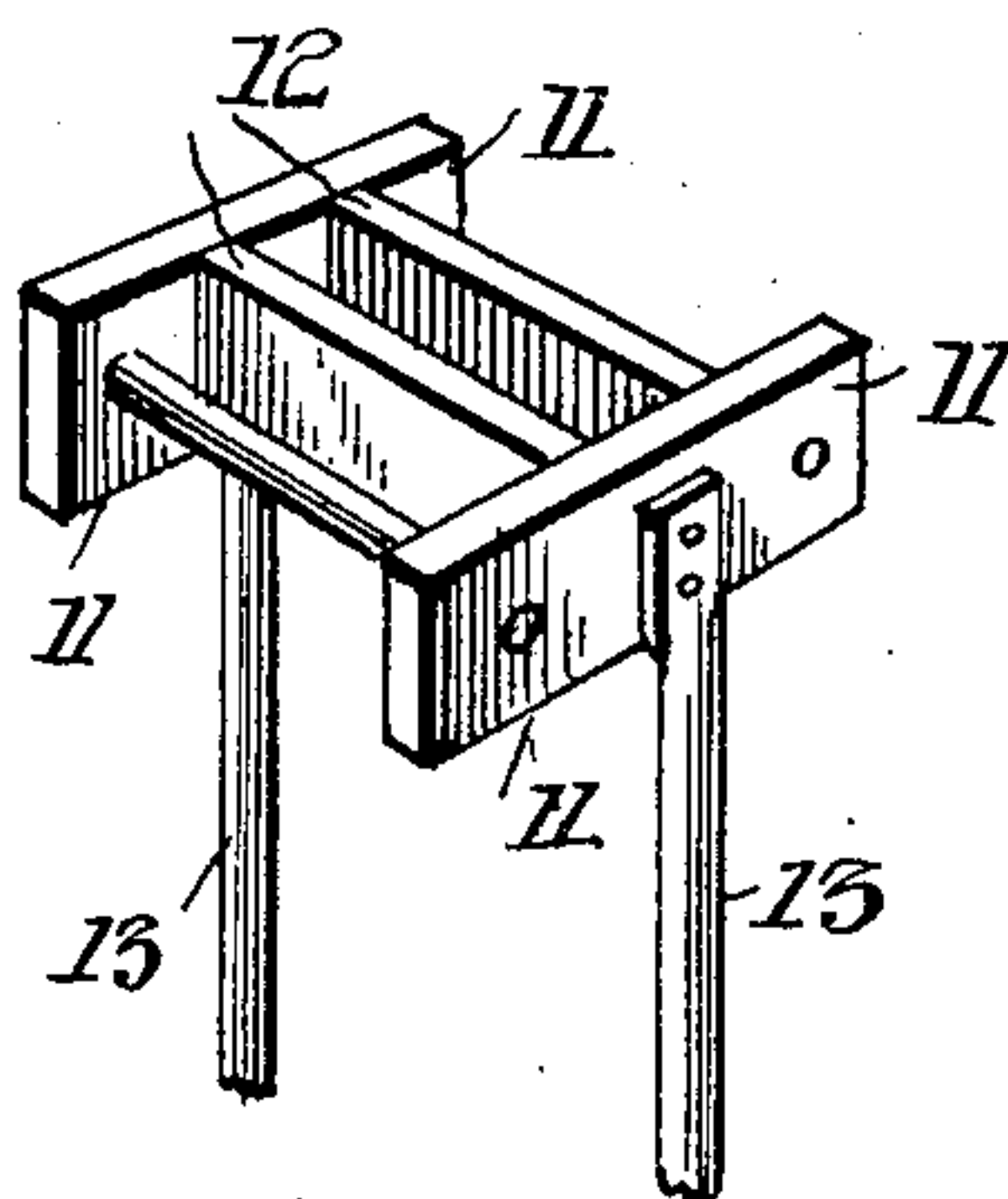


Fig. 3.

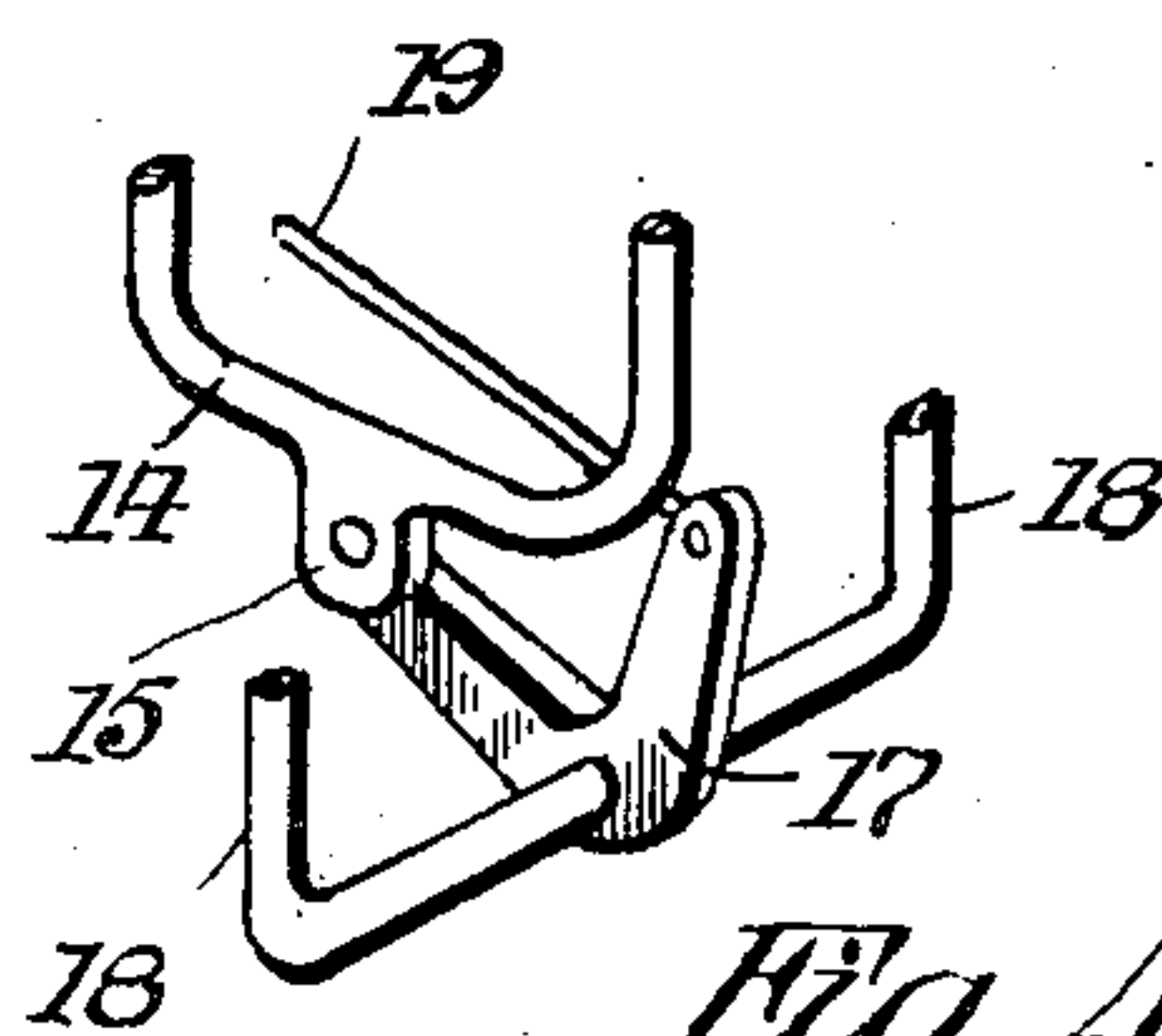


Fig. 4.

Witnesses:  
H. H. Butler  
E. E. Potter

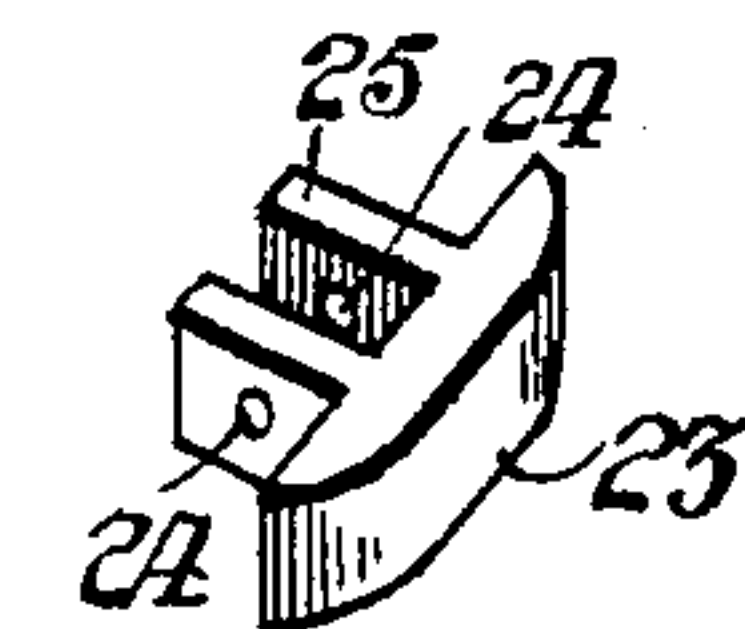


Fig. 5.

Inventor,  
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## UNITED STATES PATENT OFFICE.

EVAN WILLIAMS, OF NEWCASTLE, PENNSYLVANIA.

## CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 763,134, dated June 21, 1904.

Application filed April 2, 1904. Serial No. 201,282. (No model.)

*To all whom it may concern:*

Be it known that I, EVAN WILLIAMS, a citizen of the United States of America, residing at Newcastle, in the county of Lawrence and State of Pennsylvania, have invented certain new and useful Improvements in Car-Brakes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has relation to car-brakes, and has for its object to provide a track-brake of novel form and construction adapted to bear against the tread of the rails of both tracks of a railway.

15 In carrying my invention into effect I arrange beneath the bottom of the car and centrally thereof a framework in which are supported two angularly-disposed sliding bars adapted when projected to bear against the 20 inner sides of the flanges of both tracks of the railway, the said bars being operated by means of mechanism connected to a handle upon the platform of the car.

25 This invention consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

30 In the accompanying drawings, wherein I have illustrated my improvement, Figure 1 is a side elevation of part of the street-car with my improvements applied thereto. Fig. 2 is a front elevation of the brake mechanism, and Figs. 3, 4, and 5 are detail views in perspective of parts of the brake.

35 Upon the bottom 1 of the car is secured a hanger 2, by means of which the braking mechanism is sustained in proper position, said hanger being formed with extending ears 3 3, through which are passed bolts that secure it to the bottom of the car. The hanger 40 2 extends downwardly to within a short distance above the level of the tops of the tracks 4 4 and carries on each side horizontal plates 5, between which are secured the angularly-disposed boxes 6 6, said boxes being attached 45 to the plates by bolts 7. Within the boxes 6 6 are arranged the sliding brake-bars 8 8, each of which has its inner end attached, by means of a hinge 9, to a pitman-rod 10, the upper ends of the pitman-rods 10 being pivotally attached between and to the projecting

ends 11 of a rectangular frame 12, which embraces and slides upon the hanger 2. Vertical rods 13 13 are attached to and depend from the sliding frame 12 and are connected at their lower ends by a yoke 14, which may 55 be formed integral with the depending rods 13 13 and which has a depending lug 15, that is pierced for the passage of a pivot 16, that also passes through one end of a bell-crank lever 17, which is pivotally supported by 60 means of a bracket 18, attached to the bottom of one of the plates 5. A rod 19 is attached to the upper end of the bell-crank lever 17, and a chain 20, which is attached to the end of the rod 19, winds around a brake- 65 staff 21, which is mounted on the platform of the car and carries at its upper end a handle 22.

The lower ends of the sliding brake-bars 8 are pierced, as shown, and, if desired, a brake-shoe 23 (shown in detail in Fig. 5) may be secured in position upon the end of each brake- 70 bar by means of a bolt, which will be passed through holes 24 in ears 25 on the back of the brake-shoe and through the holes in the ends of the brake-bars. 75

The bars being constructed and arranged in the above-described manner are operated as follows: Upon turning the handle 22 the chain 20 will be wound upon the staff 21, and the traction imposed upon the rod 19 will 80 cause the bell-crank lever 17 to draw down the sliding frame 12, and the downward movement of the sliding frame 12, acting through the pitman-rods 10 10, will cause the brake-bars 8 8 to be slid outwardly in the boxes 6 6 85 until the brake-bars bear against the flanges of the rails 4 4 and through their frictional bearing against the flanges of the rail act as a brake to stop the car. The return movement of the brake-bars 8 8 is effected by means of 90 spiral tension-springs 23 23, which are attached to the sliding frame 12 and to the ears 3 3 of the hanger 2.

Having described my invention, I claim—  
1. In a car-brake, the combination of a 95 hanger secured to the bottom of the car, inclined boxes attached to said hanger, sliding brake-bars arranged in said boxes and adapted to bear against the railway-tracks, a sliding frame mounted on said hanger, means for mov- 100

ing said frame in a vertical direction, and connections between said frame and said sliding brake-bars.

2. In a car-brake, the combination of a  
5 hanger secured to the bottom of a car, horizontal plates attached to the bottom of said hanger, inclined boxes attached to said plates, sliding brake-bars arranged in said boxes, a sliding frame mounted on said hanger, springs  
10 upon which said frame is hung, pitman-bars connecting said frame to said sliding brake-bars, and means for moving said frame in a vertical direction to cause the said brake-bars to move outwardly and inwardly in the boxes,  
15 substantially as described.

3. In a car-brake, the combination of a hanger secured to the bottom of the car, a sliding frame embracing said hanger, in-

clined boxes attached to the hanger, brake-bars arranged in said inclined boxes, pitman-rods 20 connecting said brake-bars to said sliding frame, rods depending from said sliding frame, a bell-crank lever pivotally supported in a bracket carried by said hanger, said bell-crank lever having one end connected to said 25 depending rods, and connections between said bell-crank lever, and a brake-staff mounted on the platform of the car, substantially as described.

In testimony whereof I affix my signature in 30 the presence of two witnesses.

EVAN WILLIAMS.

Witnesses:

THOS. DENNIS,  
L. M. BUCHANAN.