

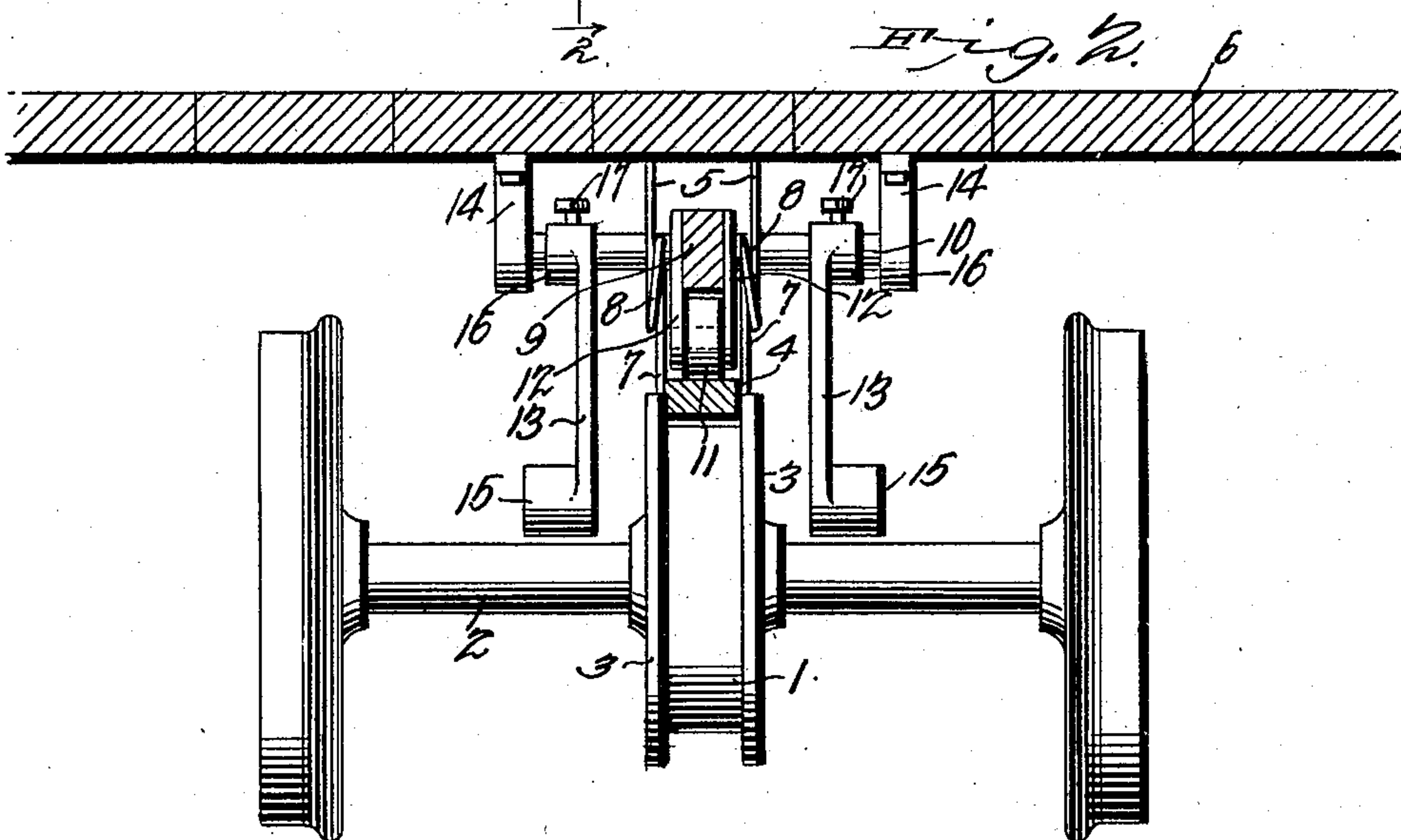
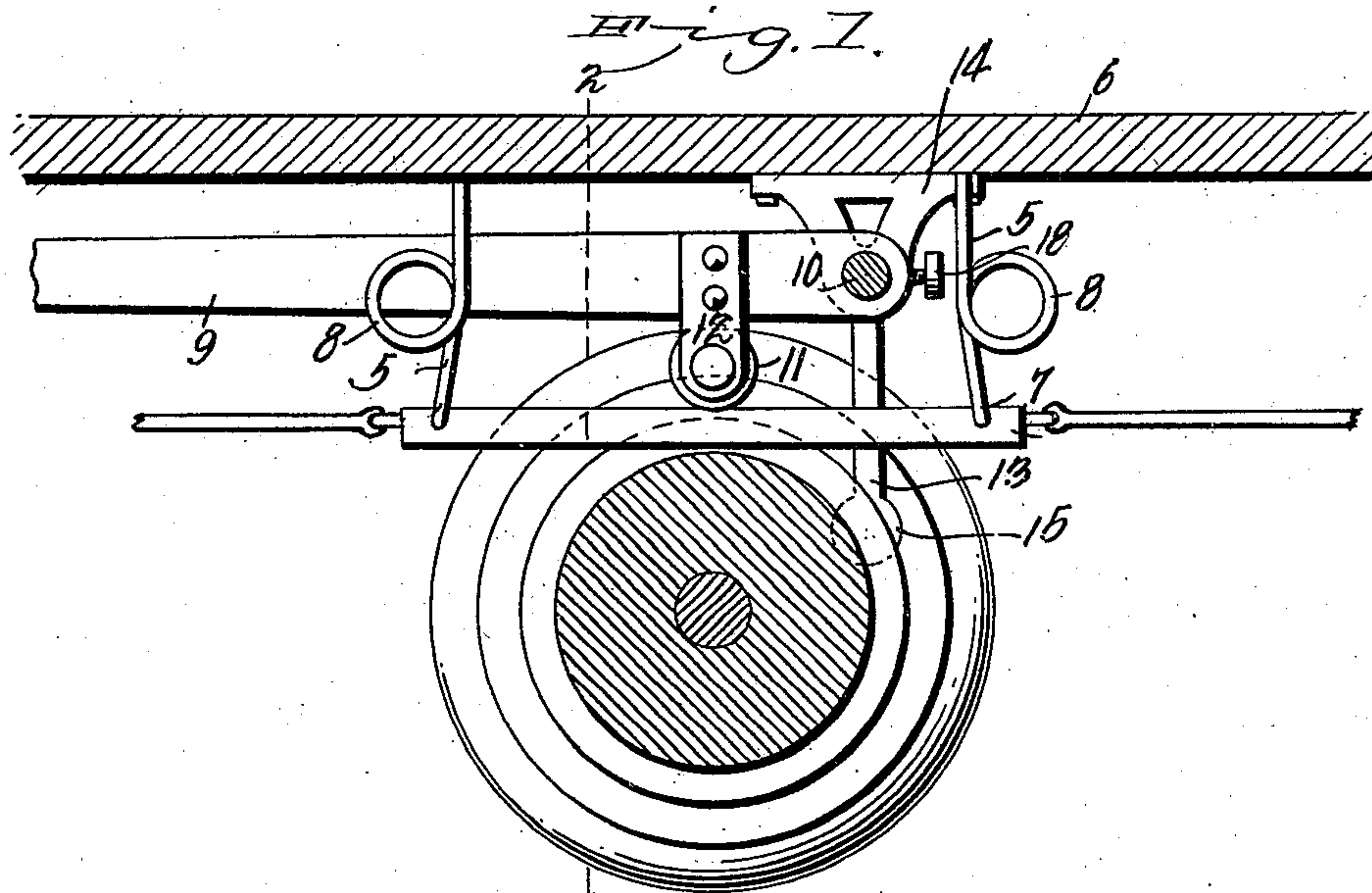
No. 708,655.

Patented Sept. 9, 1902.

A. R. MOORE.
FRICTION POWER.

(Application filed May 6, 1902.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

ANDREW R. MOORE, OF CHARLOTTE, MICHIGAN, ASSIGNOR OF ONE-HALF
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FRICITION POWER.

SPECIFICATION forming part of Letters Patent No. 708,655, dated September 9, 1902.

Application filed May 6, 1902. Serial No. 106,208. (No model.)

To all whom it may concern:

Be it known that I, ANDREW R. MOORE, a citizen of the United States, residing at Charlotte, in the county of Eaton and State of Michigan, have invented a new and useful Friction Power, of which the following is a specification.

The invention relates to improvements in brake-operating mechanism.

10 The object of the present invention is to improve the construction of brake-operating mechanism and to provide a simple and comparatively inexpensive device adapted to be readily applied to a car and to the ordinary
15 brake mechanism thereof and capable of being operated in applying the brake by the forward motion of the car, whereby a car or train may be quickly brought to a standstill.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a longitudinal sectional view of a portion of a car provided with a brake-operating mechanism constructed in accordance with this invention. Fig. 2 is a sectional view on the line 2 2 of Fig. 1.

30 Like numerals of reference designate corresponding parts in both the figures of the drawings.

1 designates a friction-wheel fixed to a car-axle 2 and provided at its periphery with parallel flanges 3, forming a groove for the reception of a reciprocating block or bar 4, located above the friction-wheel and normally suspended out of contact with the same by means of a pair of springs 5, arranged at each end of the block or bar. The springs, which
40 are arranged in pairs, are suitably secured at their upper ends to the car 6, and their lower ends 7 are attached to the block or bar 4 at the side edges of the same, and the said springs, which are preferably provided with intermediate coils 8, are adapted to permit the block or bar 4 to reciprocate in either direction and are also capable of permitting the block or bar to be forced downward into engagement with the friction-wheel. The
45 ends of the block or bar are provided with eyes or other suitable means for enabling it to

be connected by chains, rods, or the like with any ordinary brake mechanism, which is designed to be arranged to cause an application of the brakes when the bar 4 is moved in either
55 direction by the friction-wheel, whereby the brake is adapted to be applied when the car is traveling in either direction. The block-bar is forced downward into engagement with the friction-wheel by means of a lever, 60 preferably consisting of a bar 9, secured to a shaft 10, and a roller 11, connected with the bar 9 by means of a pair of arms 12; but the roller, which is disposed transversely of the block or bar at a point above the same, may
65 be connected with the lever or bar 9 by any other suitable means. The bar 9 is adapted to be forced downward by foot or hand and may be connected with any suitable operating mechanism, and when it is forced downward 70 the roller engages the reciprocating block or bar 4 and carries the same downward into engagement with the friction-wheel, which moves the block or bar longitudinally and applies the brakes, the power being obtained
75 from the axle 2. The roller operates as an anti-friction device to permit the block or bar to move freely while it is held against the friction-wheel. As soon as the bar or lever 9 is released it will be returned to its initial position 80 by means of a pair of weighted arms 13 and by means of the springs of the block or bar 4. The weighted arms 13, which are secured at their upper ends to the shaft, are arranged in a vertical position when the bar 9 is elevated
85 and the block or bar 4 is out of engagement with the friction-wheel, and they are swung upward when the brake is applied and have sufficient power to return the parts to their initial position as soon as the operating-bar 90 9 is released. The shaft is mounted in suitable brackets 14, and the arms 13, which are provided at their lower ends with weights 15, have collars 16 at their upper ends to receive the shaft and are secured to the same by
95 clamping-screws 17. The operating-bar 9 is provided with a clamping-screw 18 or other suitable means to enable it to be readily adjusted to secure the desired frictional engagement between the block or bar 4 and the friction-wheel. 100

It will be seen that the brake-operating

mechanism is exceedingly simple and inexpensive in construction, that it is adapted to be readily connected with any ordinary brake mechanism, and that the power for applying the brakes is obtained from the forward movement of a car, whereby the latter may be quickly brought to a standstill. Furthermore, it will be seen that as soon as the operating mechanism is released it is returned to its initial position and that the springs which support the brake-actuating block or bar will return the same to its initial position, and thereby immediately relieve the car-wheels of the brake.

15 What I claim is—

1. In a device of the class described, the combination with a friction-wheel designed to be mounted on a car-axle, of a reciprocating block or bar arranged adjacent to the friction-wheel, springs supporting the block or bar and permitting the same to move upward and downward and backward and forward, and means for forcing the block or bar into contact with the friction-wheel, substantially as described.

2. In a device of the class described, the combination with a friction-wheel designed to be mounted on a car-axle, of a reciprocating bar located above the friction-wheel and designed to be connected with a brake, and springs suspending the block or bar normally out of contact with the friction-wheel and provided with intermediate coils, and means for forcing the block or bar into contact with the friction-wheel, substantially as described.

3. In a device of the class described, the combination with a friction-wheel, of a reciprocating brake-actuating block or bar designed to be connected with a brake and located above the friction-wheel, springs normally supporting the block or bar out of contact with the friction-wheel, and a lever lo-

cated above the block or bar and provided with a roller arranged to engage the said block or bar to carry the same into engagement with the friction-wheel, substantially as described.

4. In a device of the class described, the combination with a friction-wheel, of a reciprocating brake-actuating block or bar designed to be connected with a brake and located adjacent to the friction-wheel, springs supporting the block or bar normally out of contact with the friction-wheel, a lever located adjacent to the block or bar and provided with means for engaging the same to force the block or bar against the friction-wheel, and a weighted arm connected with the lever and normally located in a vertical position and adapted to be shifted from such position when the brake is applied, substantially as described.

5. In a device of the class described, the combination with a friction-wheel, of a brake-actuating block or bar located above the friction-wheel, means for supporting the block or bar normally out of engagement with the wheel and for permitting the bar or block to move upward and downward and backward and forward, a shaft mounted above the block or bar, weighted arms depending from the shaft and normally arranged in a vertical position, an operating-bar fixed to the shaft, arms arranged at opposite sides of the operating-bar and disposed at an inclination, and a roller carried by the arms, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ANDREW R. MOORE.

Witnesses:

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F. H. PALLARD.