

(No Model.)

3 Sheets—Sheet 1.

J. R. CRIBBS.
CAR BRAKE.

No. 560,977.

Patented May 26, 1896.

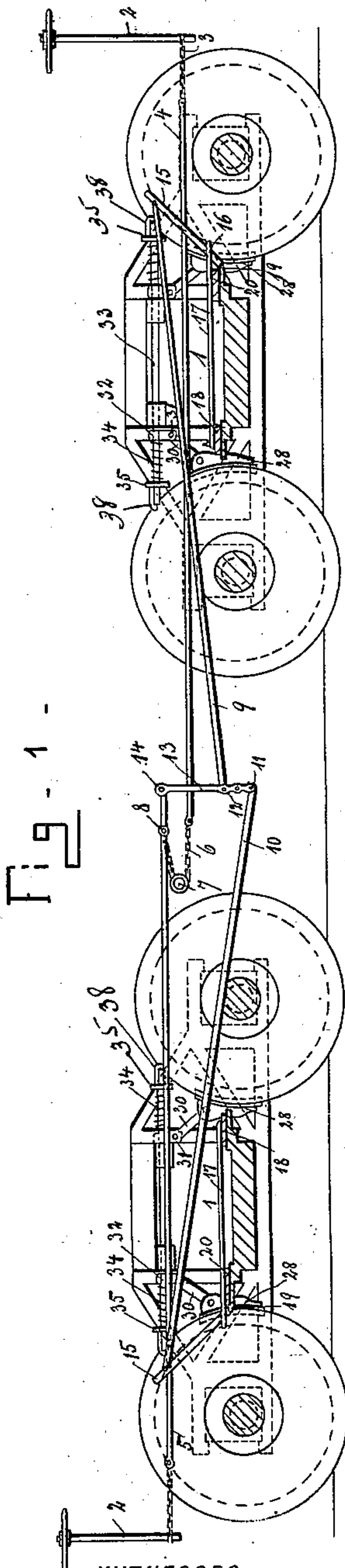


Fig. 1 -

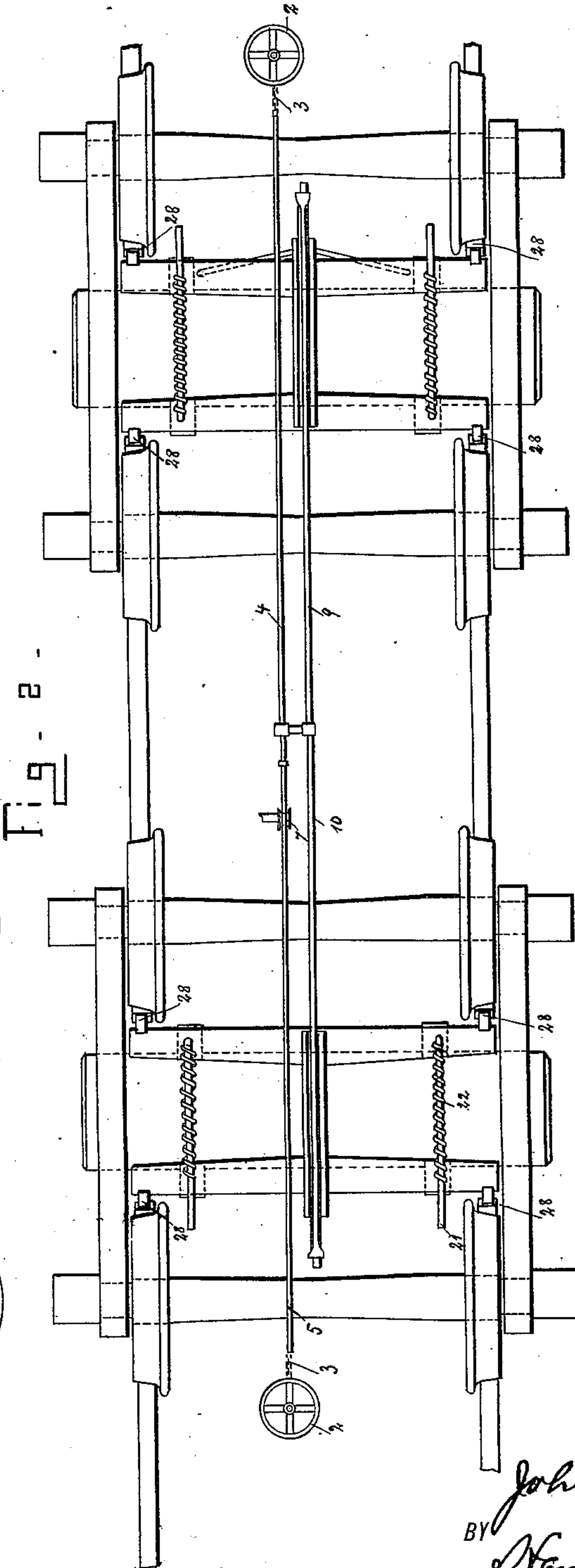


Fig. 2 -

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Fig. 3.

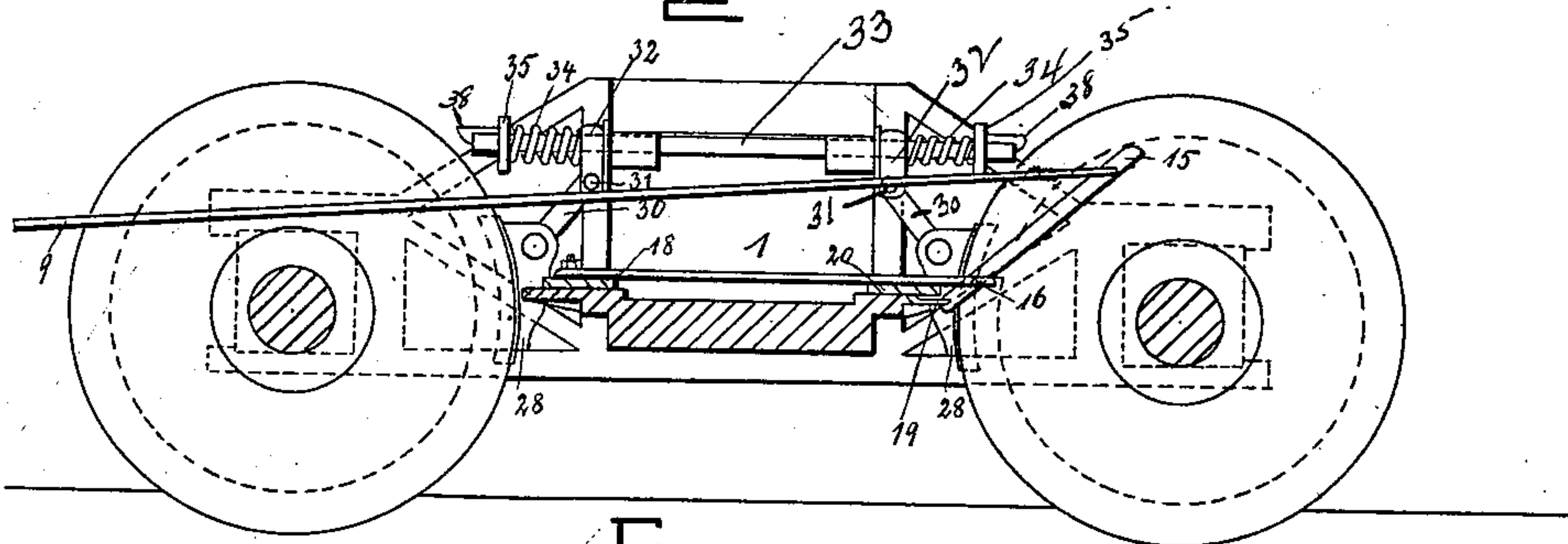
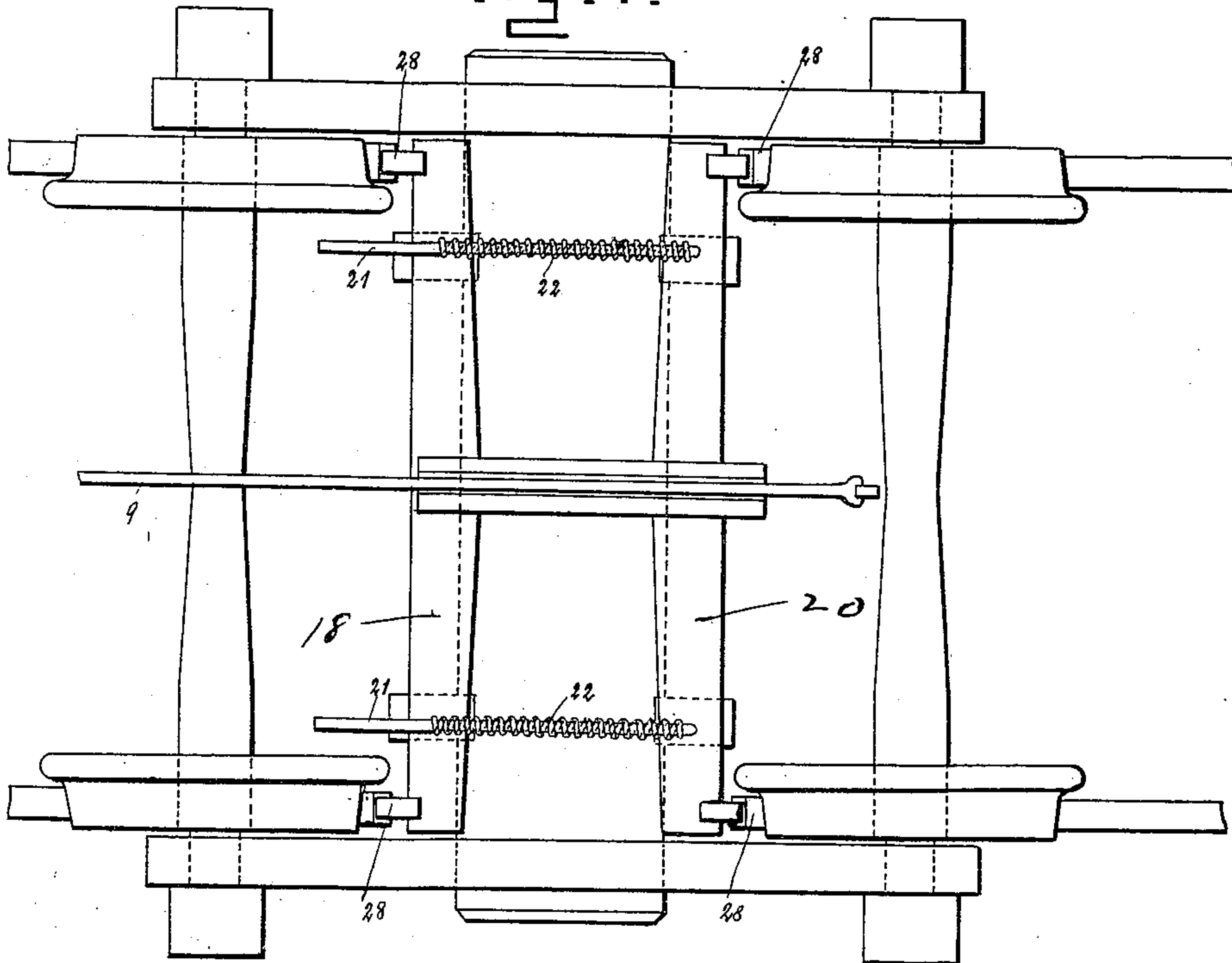


Fig. 4.



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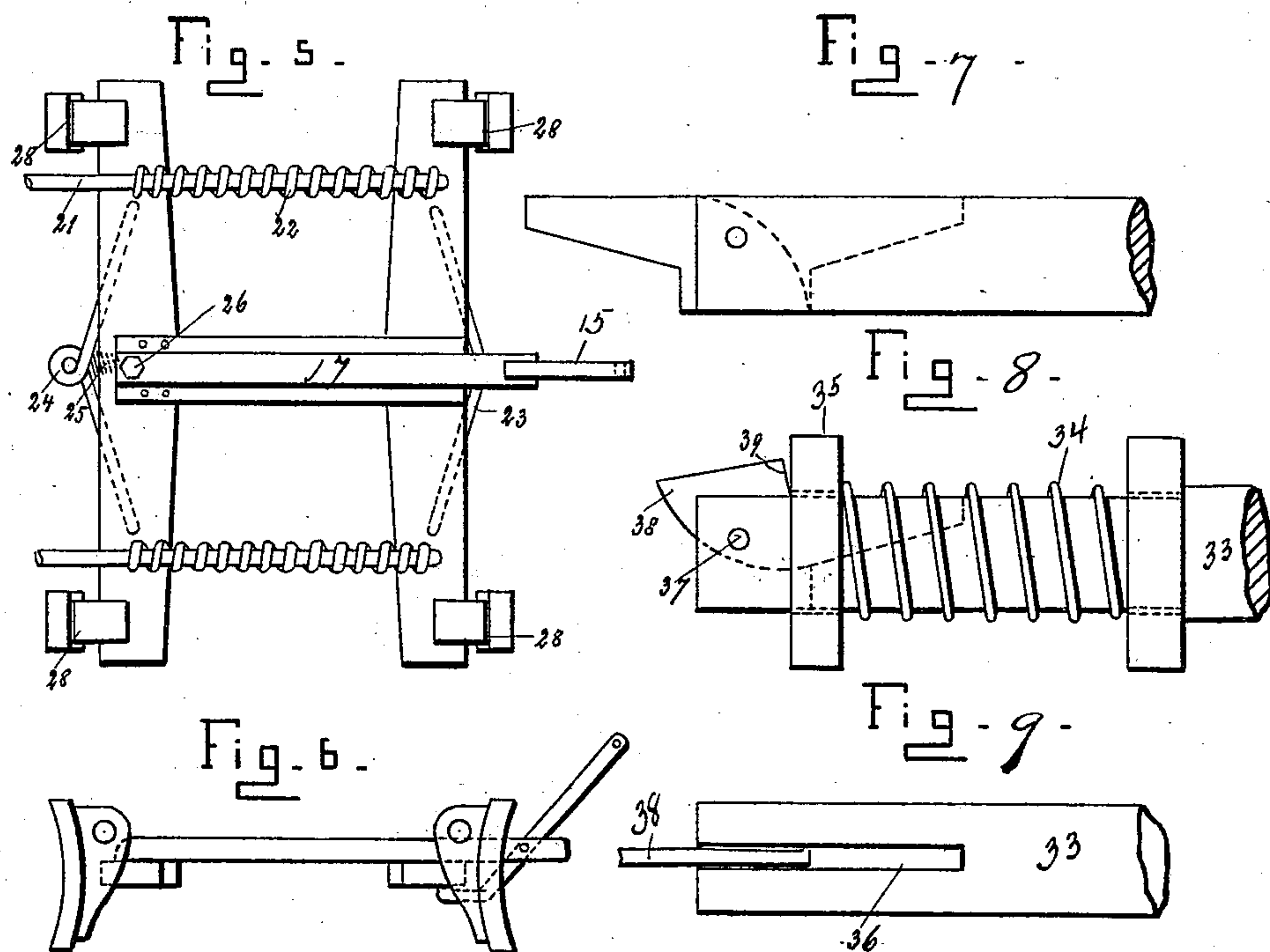
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UNITED STATES PATENT OFFICE.

JOHN R. CRIBBS, OF VERONA, PENNSYLVANIA.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 560,977, dated May 26, 1896.

Application filed April 15, 1895. Serial No. 545,749. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. CRIBBS, a citizen of the United States of America, residing at Verona, in the county of Allegheny 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.

This invention relates to certain new and useful improvements in brakes, and relates more particularly to that class employed on railway and street cars.

The invention has for its object the provision of novel means whereby the brake-shoes may be readily applied to the wheels and the train or car brought to a standstill within a few revolutions of the wheels.

The invention has for its further object to construct a brake of the above-referred-to class that will be strong, durable, comparatively inexpensive to manufacture, and highly efficient in its operation.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts to be hereinafter more particularly described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate similar parts throughout the several views, in which—

Figure 1 is a side elevation of a double truck with my improved brake attached thereto. Fig. 2 is a plan view of the same. Fig. 3 is an enlarged side elevation of one of the trucks, showing more particularly the arrangement of the parts. Fig. 4 is a plan view of the same. Fig. 5 is a detail plan view of the brake-beams carrying the brake-shoes. Fig. 6 is a side elevation of the same. Fig. 7 is a detail view of the securing-pin for the hangers of the brake-shoes. Fig. 8 is a detail view of the same provided with the collars and spring. Fig. 9 is a plan view of the securing-pin.

In the drawings, 1 indicates the trucks of the car; 2 2, the brake-shafts arranged at each end of the car; 3 3, the chain connecting the brake-shaft with the operating-rods 4 and 5. The operating-rod 4 is provided at its free

end with a chain 6, passing around a pulley 7. Said pulley may be attached to the frame of the car in any suitable manner. The chain is connected at 8 to the operating-rod 5.

The reference-numerals 9 and 10 indicate lever-rods pivotally connected at 11 and 12, respectively, to the vertical lever-arm 13, arranged at a point midway between the front and rear trucks, the top of said lever-arm 13 being pivotally connected at 14 to the operating-rod 5. At the other extremity of the lever-rods 9 and 10 is a lever-arm 15, fulcrumed at 16 to the horizontal cross-piece 17, the latter being connected to the brake-beam 18. To the lower extremity of the lever-arm 15 is arranged a connecting-iron 19, fastened to the brake-beam 20. On the top face of said brake-beam 20 are attached horizontal rods 21 21, extending over and beyond the brake-beam 18. Spiral springs 22 22 are secured at one end to the brake-beam 18 and at the other end to the brake-beam 20, said spiral springs 22 22 passing around the rods 21 21 and serving to retain the brake-beams normally away from the wheels. A connecting-iron 23 is also arranged on the underneath side of the brake-beam 18, a connecting-iron 24, carrying from its center a spiral spring 25, connected to the lower portion of the nut 26 of the screw 27, connecting the horizontal cross-piece 17 with the brake-beam 20, the irons 23 and 24 forming connections for the air-brake rods or chains, as will be apparent.

The brake-beams 18 and 20 carry brake-shoes 28 28, which are further supported by hangers 30, which are pivoted at 31 to the bracket 32, said bracket being slidable on the horizontal rods 33. Encircling the rod and engaging the bracket is a coil-spring 34, with its opposite end bearing against a washer 35, secured in place on the rod by a key 38, pivoted at 37 in slots formed on the ends of the rod, as shown in detail, Figs. 7 and 8. The shoulder 39 of the key engages the washer which holds the spring in its normal position, and the key being pivoted affords ready means for releasing and removing the washer and spring.

The operation of the brake is as follows: Turning the brake-shaft will operate the lever-rod and operating-rod, communicating motion to the brake-beams and applying the

brake-shoes to the periphery of the wheels. When the brake-shaft is released, the springs of the brake-beams and brake-shoes will automatically release the brake-shoes from the
5 wheels.

It will be seen that various changes may be made in the details of construction of my improved brake without departing from the general spirit of my invention.

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

1. In a car-brake, the combination of the operating-lever, rods connected by a lever
15 midway of the car, a set of brake-beams, rods connecting the beams of each set, springs around the rods, hangers for supporting the brake-shoes, brackets to which the hangers are pivoted, springs pressing the hangers and
20 a latch for holding each spring in position, as and for the purpose described.

2. In a car-brake, hangers for the brake-

shoes, brackets to which the hangers are pivoted, horizontal rods on which the brackets are slidable, said rods having slots in the ends, 25 keys pivoted in the slots and springs fitting over the rods and pressing the brackets, as and for the purpose described.

3. In a car-brake, the combination of a lever and operating-rods suitably connected together and operating brake-beams carrying brake-shoes, hangers and brackets whereby said brake-shoes are suspended, a horizontal shaft carrying a securing-pin provided with a key, washers and springs, all parts being ar- 35 ranged and operating substantially as described.

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

JOHN R. CRIBBS.

Witnesses:

H. C. EVERT,

W. E. ELBERT.