

(No Model.)

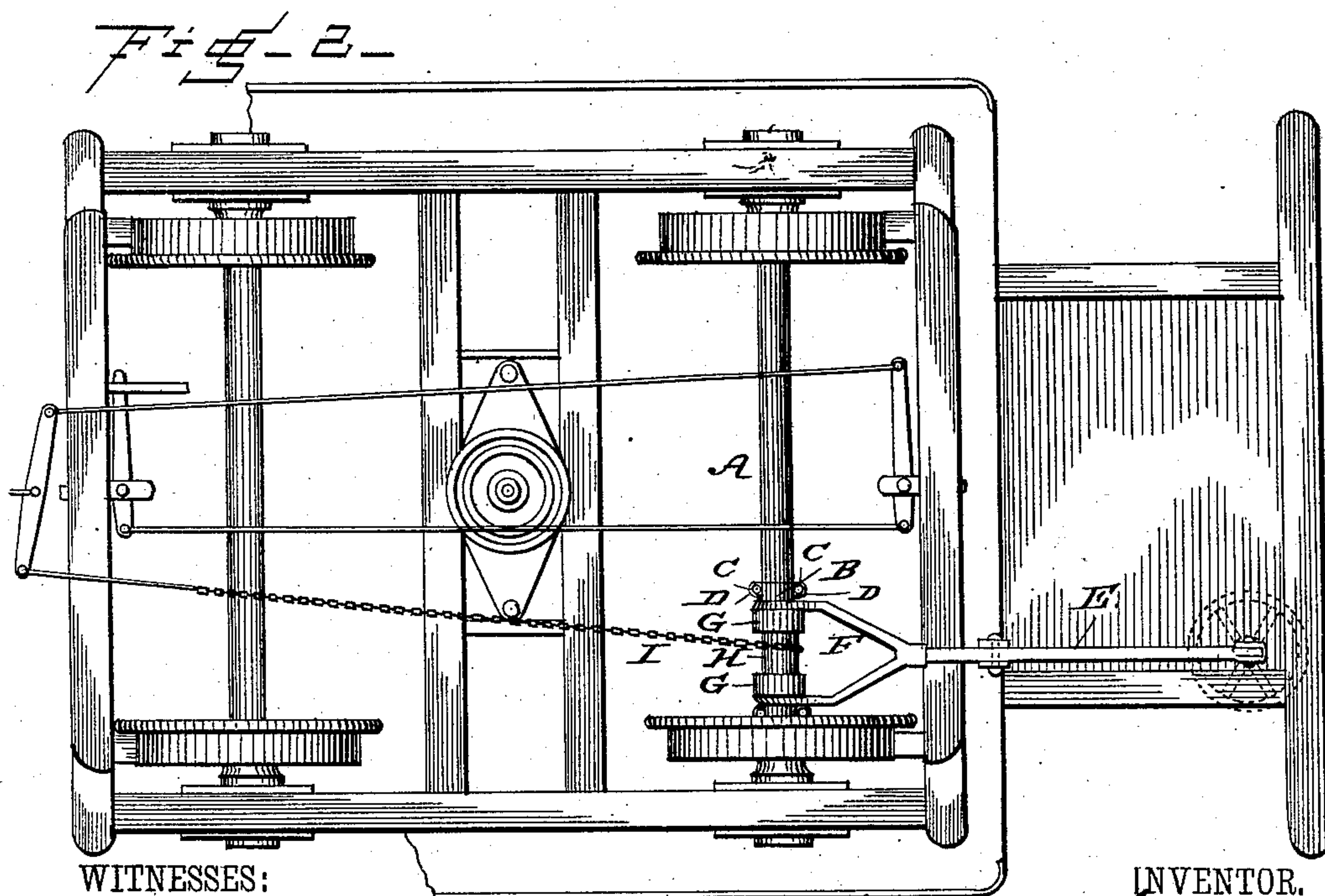
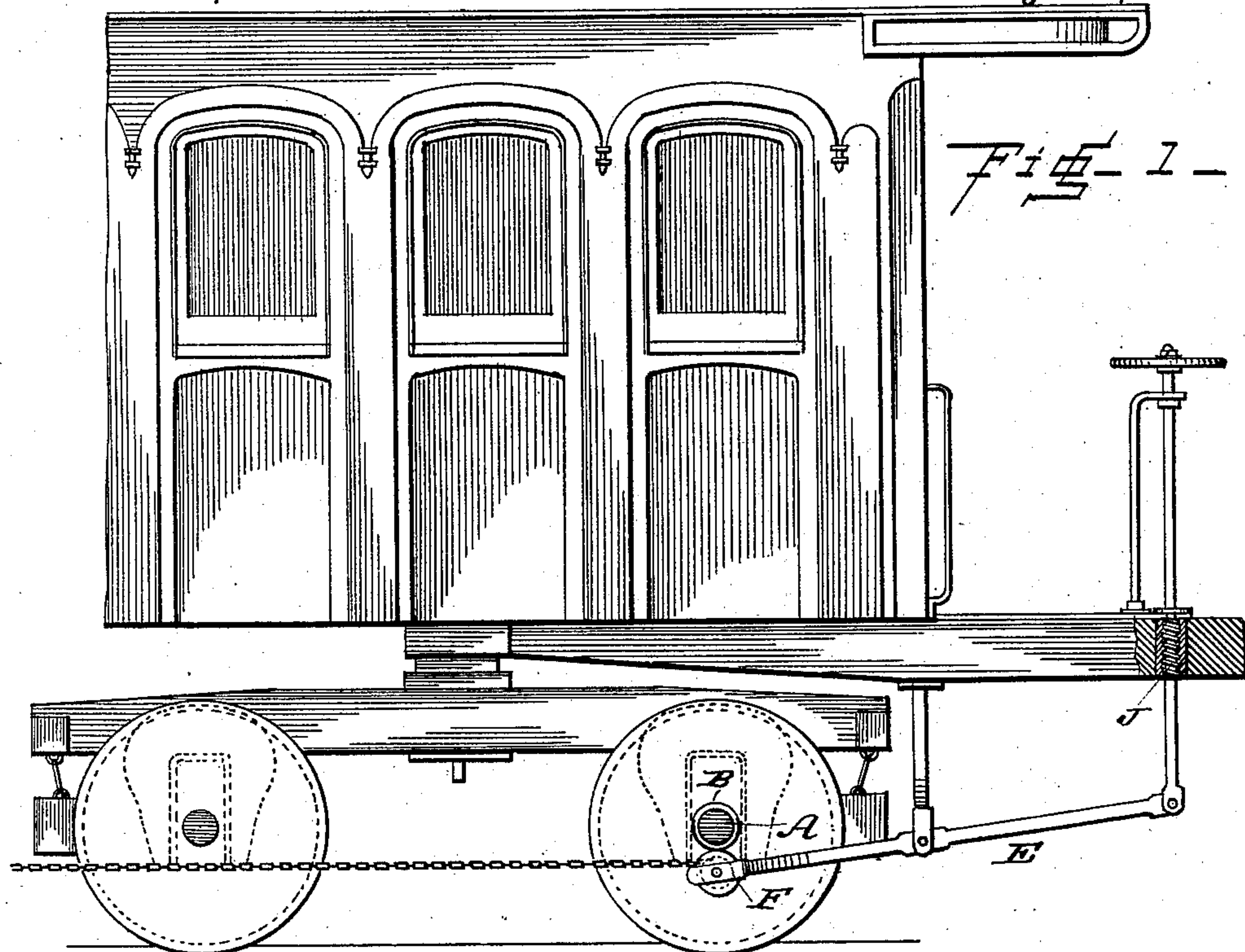
2 Sheets—Sheet 1

T. L. McKEEN.

CAR BRAKE.

No. 302,150.

Patented July 15, 1884.



WITNESSES:

Wm. S. Dieterich
Wm. Fecher

INVENTOR.

Thomas L. McKeen
by Louis Rogger & Co.

ATTORNEYS.

(No Model.)

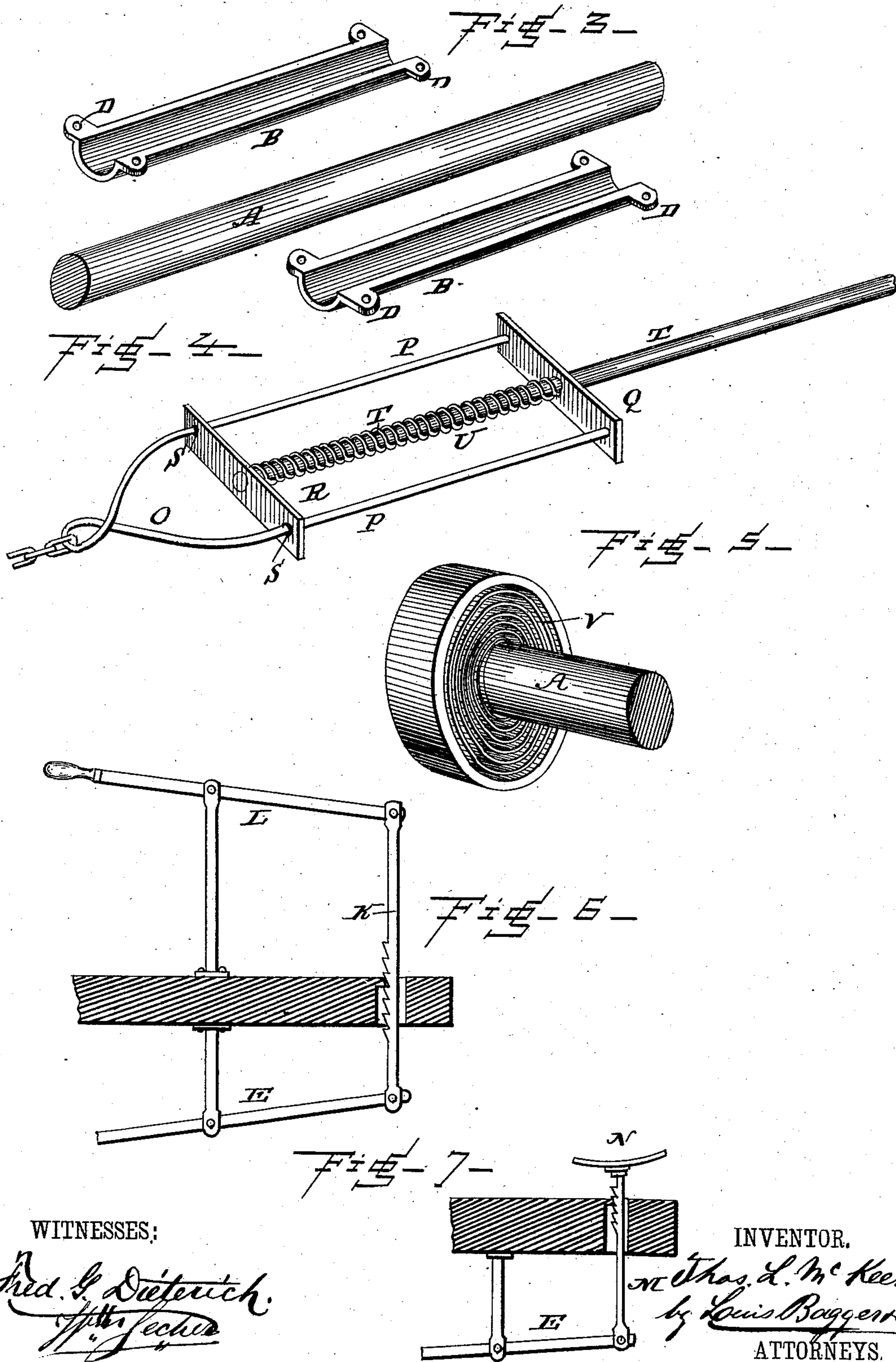
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No. 302,150.

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WITNESSES:

Ad. S. Dietrich
J. J. Secher

INVENTOR.

T. L. McKeen
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UNITED STATES PATENT OFFICE.

THOMAS L. McKEEN, OF EASTON, PENNSYLVANIA.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 302,150, dated July 15, 1884.

Application filed May 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. McKEEN, a citizen of the United States, and a resident of Easton, in the county of Northampton and State of Pennsylvania, have invented certain new and useful Improvements in Brakes for Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of as much of a railway-car as will show my improved brake-operating mechanism, the wheels on one side being broken away. Fig. 2 is a bottom view of the same. Fig. 3 is a detail view of the sleeve upon the axle and a portion of the axle. Fig. 4 is a view of the spring upon the brake-chain. Fig. 5 is a view of a modification of the friction-pulley, and Figs. 6 and 7 are views of modifications of the means for forcing the outer end of the pulley-bearing lever down.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of brake-operating mechanisms in which a friction-pulley is brought to bear against and to revolve with the axle of the car, winding the brake-chain; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings the letter A indicates the axle, which is provided with a sleeve, B, composed of two halves secured together by means of screw-bolts C, passing through perforated lips D at the ends of the sleeve, causing the two halves to clamp the axle. A lever, E, is pivoted at or near its middle under the car, rocking in a vertical plane, and its inner end is bifurcated, as shown at F, and two pulleys, G G, connected with a sleeve, H, are journaled between the bifurcated ends, and may be brought to bear against the sleeve upon the car-axle by depressing the outer end of the lever. The brake-operating chain I is secured to the sleeve or shaft connecting the two pulleys, and winds upon the same, thus tightening the

brake-chain and the brakes; when the pulleys are brought to bear against the sleeve upon the axle, the revolving axle revolving the pulleys and winding the brake-chain upon the shaft.

The outer end of the lever may be depressed by a steep-threaded screw, J, turning in a threaded perforation in the car-platform, provided with a hand-wheel at its upper end, and bearing against the outer end of the lever with its lower end, or the lever may be depressed, as shown in Figs. 6 and 7, by a vertically-sliding rod, K, pivoted at its lower end to the lever, and pivoted at its upper end to a lever, L, pivoted upon an upright upon the platform of the car, or by a vertically-sliding rod, M, pivoted to the lever at its lower end, and provided at its upper end with a plate or treadle, N.

For the purpose of preventing the brake-chain from drawing too hard upon the brakes if the friction-pulleys continue to wind the said chain, the end of the chain is attached to a yoke, O, connecting the ends of two parallel rods, P, projecting from the ends of a yoke or plate, Q, having a perforation or bearing at its middle, and a yoke, R, having perforations S at its ends, slides upon the rods, and has the end of a rod, T, sliding in the central bearing of the yoke upon the ends of the parallel rods secured to its middle, and a spring, U, is wrapped around the end of this sliding rod, bearing with its ends against the stationary and the sliding yoke. This spiral spring is sufficiently strong to allow the chain to operate the brakes without yielding; but if the strain should for any reason become too hard the spring will yield, and thus prevent the chain from breaking. The same result may be accomplished by allowing the friction-pulleys to turn loosely upon their shaft, and attaching a strong helical spring, V, with one end to the shaft and with the other end to the pulley, and this spring is sufficiently strong to allow the friction-pulleys to turn their shaft and wind the brake-chain, while it will yield if a too great strain is made upon the chain.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of the car-axle having the

friction-sleeve, the lever pivoted under the car to rock in a vertical plane, the friction-pulleys journaled between the bifurcated inner ends of the lever and connected by a shaft
5 between them, the brake-chain secured to the said shaft, and a screw having steep threads provided with a hand-wheel at its upper end, turning in a threaded perforation in the car-platform, and bearing against the outer end

of the lever, as and for the purpose shown in and set forth.

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

THOMAS L. McKEEN.

Witnesses:

S. L. FISLER,

WM. H. HULICK.