J. RHOADS.

CAR-BRAKES.

No. 184,664. Patented Nov. 21, 1876.

Fig. 1

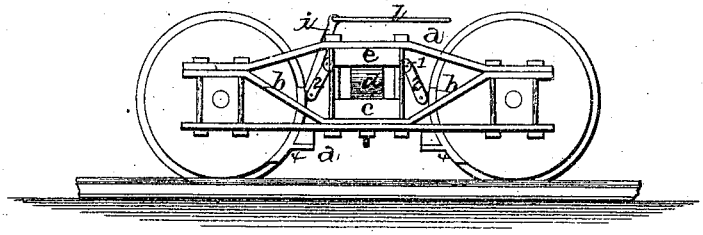


Fig. 2.

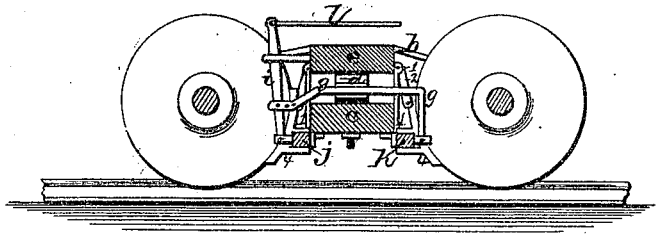
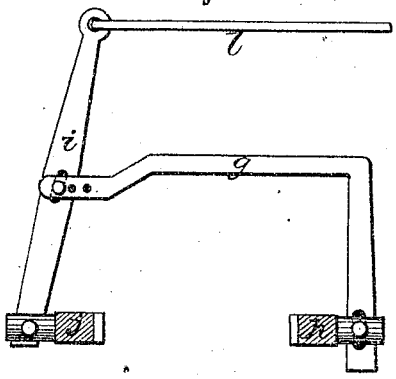


Fig. 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN RHOADS, OF HARRISBURG, PENNSYLVANIA.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **184,664**, dated November 21, 1876; application filed October 21, 1876.

To all whom it may concern:

Be it known that I, JOHN RHOADS, of Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Car-Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in brakes; and it consists in the arrangement and combination of parts, that will be more fully described hereinafter, whereby a cheap, simple, and effective brake is produced.

The accompanying drawings represent my invention.

a represents a truck, of any suitable construction, to which my invention is applied. Extending across the truck, midway between the wheels, and held rigidly in position by the iron frames *b*, in which the axle-boxes are supported, is the spring-board *c*. Upon the top of this board, but separated from it by the spring *d*, is the bolster *e*, the distance between the bolster and board being always such as to allow the connecting-rod *g* to pass.

This rod is bent, as shown, and is attached at one end to the brake-beam *h* by any suitable coupling device, while the other end is bifurcated, and has a series of holes in it. Pivoted between this bifurcated end is the lever *i*, which is slotted at its pivoting-point, and has its lower end attached to the second brake-beam *j*. To the upper end of this lever is attached the rod *l*, and to this rod a chain, that is attached to the shaft of the hand-wheel on the car.

Made in a single piece or casting at each end of the spring-board are the supports 1, which straddle over the top of the spring-board, are secured to its sides, and extend up above its top edges. Pivoted or hinged to the tops of these supports are the hangers 2, and to the lower ends of these hangers are pivoted the shoes 4. By means of these double joints the shoes can conform to the shape of the wheel under all circumstances.

By drawing upon the end of the lever, both of the brake-beams will be drawn toward the wheels; the whole operating mechanism consisting simply of the lever, curved connecting-rod, and the connecting-chain to the brake-shaft.

By means of the slot in the lower end of the connecting-rod, it can be attached to high or low brake-beams, and, by means of the series of holes in its other end, wear upon the shoes can be compensated for.

By making the connecting-rod curved, and passing it over the spring-board, the various parts of the brake are held up out of contact with projections and objects upon the track.

Many parts that have heretofore been used are done away with, and the cost and construction of the brake greatly cheapened.

Having thus described my invention, I claim—

In a car-brake, the combination of the slotted connecting-rod, bent and passed over the spring-board, with the slotted lever *i* and brake-beams, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of February, 1876.

JOHN RHOADS.

Witnesses:
THOS. RANDALL,
JAMES RHOADS.