(No Model.)

J. TRENDLEY.

CAR BRAKE.

No. 464,596. Patented Dec. 8, 1891.

Fig. I.

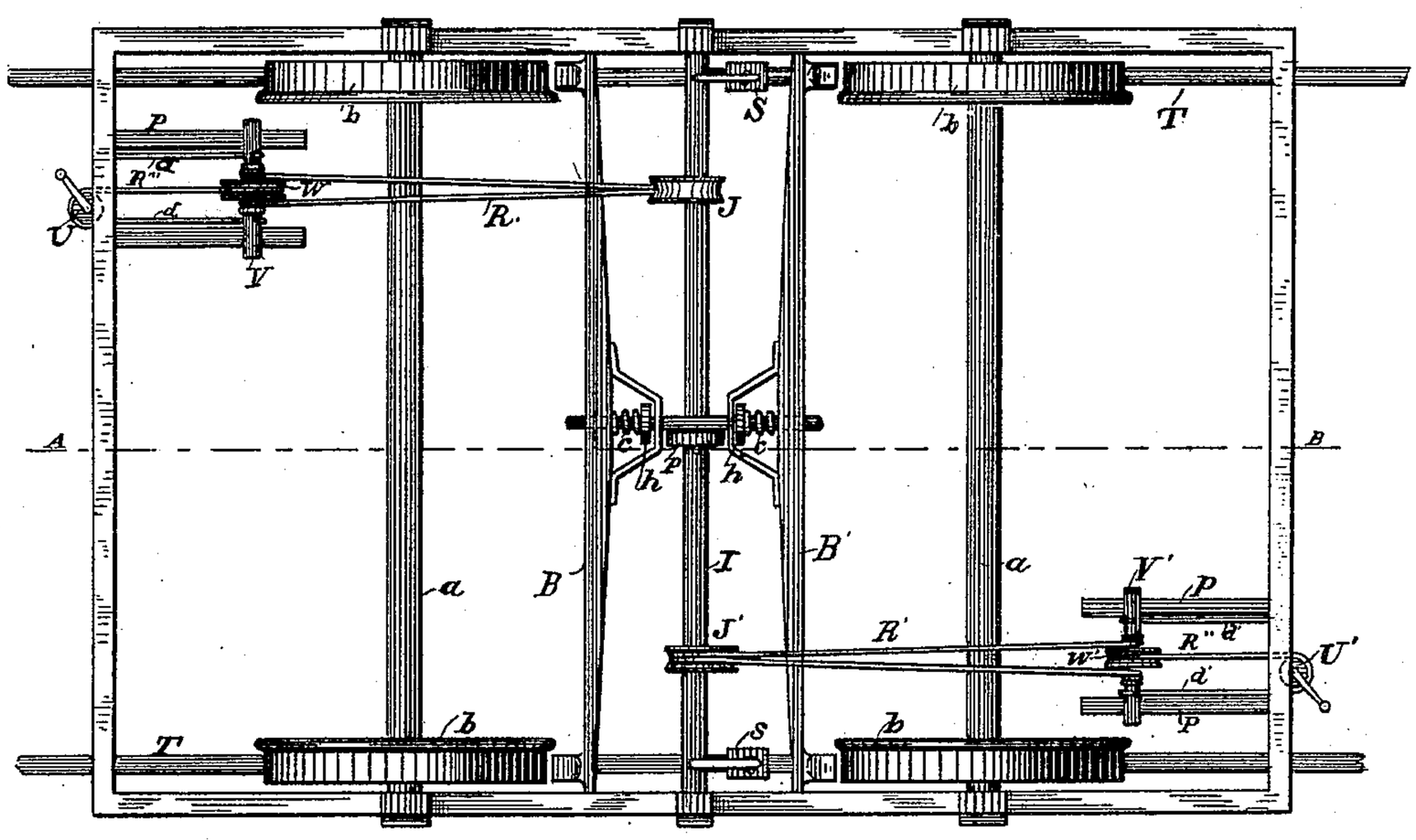


Fig. II.

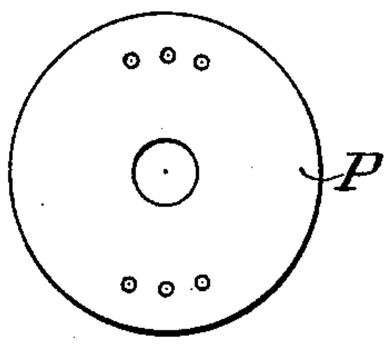


Fig. III.

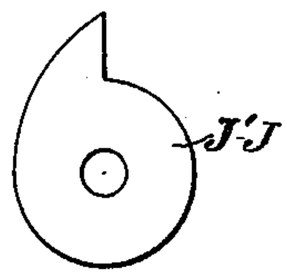
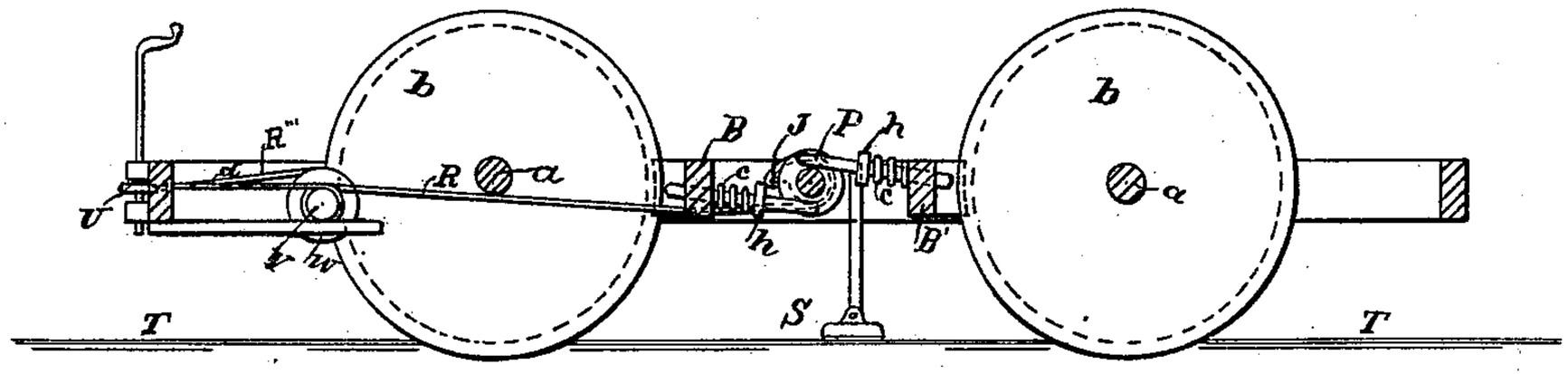


Fig. IV.



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UNITED STATES PATENT OFFICE.

JOHN TRENDLEY, OF ST. LOUIS, MISSOURI, ASSIGNOR OF TWO-THIRDS TO JOHN W. SCHORR AND CHARLES NOLL.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 464,596, dated December 8, 1891.

Application filed May 21, 1891. Serial No. 393,610. (No model.)

To all whom it may concern:

Be it known that I, JOHN TRENDLEY, a citizen of the United States, and a resident of the city of St. Louis, in the State of Missouri, have invented a new and useful Improvement in Car-Brakes, of which the following is a specification.

The objects of my invention are to provide a car-brake which is more effective and durable than any heretofore made and one capable of exerting greater force on the brake-shoes; and it consists in the arrangement and combination of parts particularly pointed out in the claim. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a plan view of my improvement attached to the truck of a car. Fig. II is an elevation of the wheel P, fixed on the rock-shaft I. Fig. III is an elevation of one of the eccentric-pulleys J J′, fixed on the rock-shaft I. Fig. IV is a vertical section drawn on the dotted line in Fig. I.

Similar letters refer to similar parts throughout the several views.

b b b b are ordinary truck-wheels supporting the car, and are adapted to travel on ordinary car-rails T T.

a a are axles connecting the truck-wheels, and are mounted in usual bearings in the frame-work of the truck. This frame-work of the truck is provided with ordinary brake-heads B and B′, which carry the usual shoes at their respective ends to impinge on the several wheels *b b b b* in the usual manner. These brake-heads are each provided with a movable bar *h*, one end of which passes into one of the series of holes in the wheel P, and the other end of which passes through the brake-head at or near its center, and is supported by a bracket *c* on said brake-head. The object and function of the series of holes in the wheel P is to regulate the throw of the brake-head. There are two sets of these series of holes, one above and one below, obviously so that when the wheel P is turned it will throw the brake-heads in opposite directions.

I is a rock-shaft journaled in the truck-frame at each end. The wheel P is fixed on this rock-shaft, and it also carries eccentric-pulleys J J′, which are also fixed on it at or near each end, which carry ropes or chains R R′. These pulley-eccentrics are arranged on the rock-shaft, so that the longest radius of the eccentric is operated on by the rope or chain R at or near the last end of the forward throw of the brake-head.

S is a rail-shoe, and is attached to the rock-shaft I by means of an arm (seen in Figs. I and IV) and operated up and down in unison with the brake-heads B and B′ by the backward and forward movement of the rock-shaft.

As all the foregoing is old and of every-day construction, however, further detailed description is not deemed necessary.

To the frame-work of the truck, which in this construction is one and the same with the base of the car-body, are attached two supports P P′, which project inward from the sill of the frame and extend in about the same horizontal plane thereto. These supports serve to carry the drum V′ and permit it to roll back and forth on them. This drum V′ is a round piece of metal or wood, and has mounted thereon a pulley W′, which is larger in diameter than the drum V′, and is adapted to carry a rope or chain R″ on its periphery, which rope is wound on it in an opposite direction from what the ropes R are wound around the drum V′, and has its end fixed to said pulley W′. This rope R″ has its other end wound on the crank-lever U at or near its end in the usual and well-known manner. The drum V′ is provided with two ropes or cables *d′ d′*, which are attached to it at or near its ends, and are wound around in an opposite direction from the rope R. Now the rope R can be attached to the eccentric J on the rock-shaft I, and thus operate the brake-shoes, or it can be attached to any ordinary brake-block in any ordinary manner. It is obvious that when the crank-lever U is turned by the operator the rope R″ will be wound thereon and will turn the pulley W′, which in turn will turn the drum V′, which will wind up the ropes *d′ d′*, and which will move along the supports P′ P′ toward the front, and will therefore wind up the rope R and revolve the rock-shaft or operate on the brake-heads, according as said rope is attached directly to the brake-heads or by some intervening mechanism, as the rock-shaft in the drawings.

These two sets of this mechanism are situated at each end of the car, as seen in the drawings, so that the brake can be operated from either end of the car.

Now what I claim, and for which I ask Letters Patent of the United States to be granted to me, is—

In a car-brake, a pulley fixed upon a movable drum of smaller diameter than said pulley, a brake-chain attached to and wound on said pulley and attached to and wound on the shaft of a crank-lever U, two stay-chains wound upon said drum in an opposite direction from the rope or cable R and attached to the car-frames in front, a brake-chain wound around said drum in an opposite direction to said stay-chains and attached by its other end to the brake mechanism of the car, two supports fixed to the frame-work of the car and supporting a movable drum, and a movable drum having said ropes and pulley attached thereto and movably impinging on said supports, all combined and arranged substantially as above described, and for the purposes set forth.

JOHN TRENDLEY.

Attest:
WM. M. ECCLES,
R. R. SWEET.