(No Model.)

P. CASEY, Jr.

EMERGENCY BRAKE FOR CARS.

No. 597,813. Patented Jan. 25, 1898.

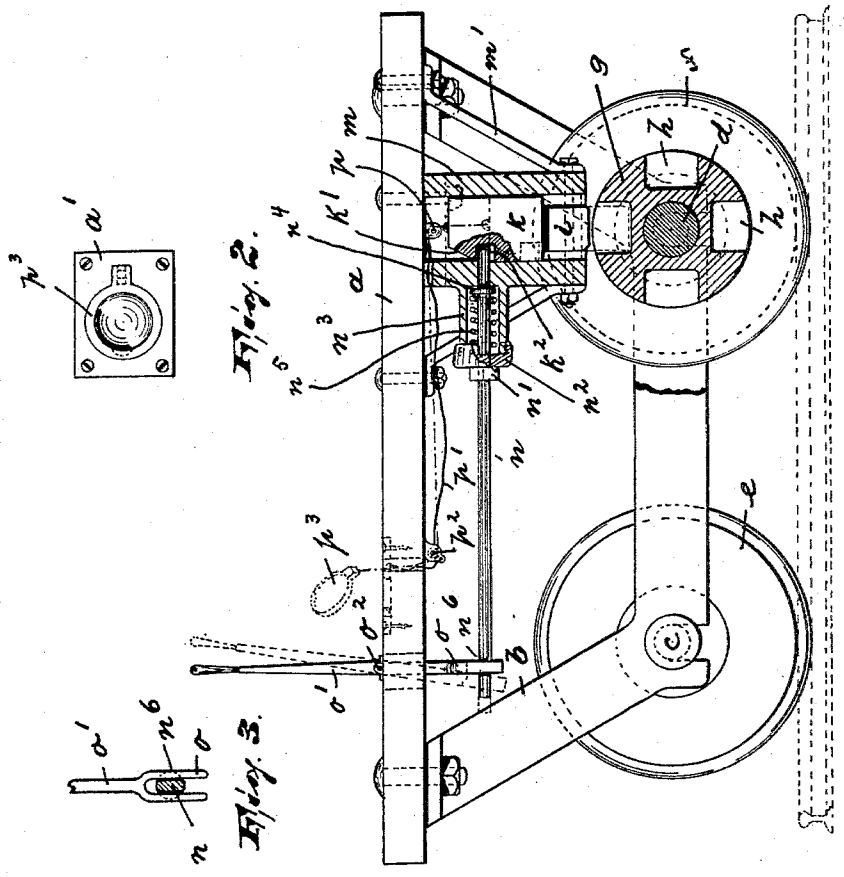


Fig. 1.

Fig. 2.

Fig. 3.

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EMERGENCY-BRAKE FOR CARS.

SPECIFICATION forming part of Letters Patent No. 597,813, dated January 25, 1898.

Application filed September 15, 1897. Serial No. 651,739. (No model.)

To all whom it may concern:

Be it known that I, PHILIP CASEY, Jr., a citizen of the United States, residing at Paterson, county of Passaic, and State of New Jersey, have invented certain new and useful Improvements in Emergency-Brakes for Street or Railway Cars and the Like; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in brakes for street and railway cars and the like, and its object is to provide such vehicles with a brake for quickly and readily stopping the same in cases of emergency, of simple, strong, and durable construction, reliable in operation, and easily and quickly handled.

The invention consists in the improved emergency-brake for street and railway cars and the like, and in the combination and arrangements of the various parts thereof, substantially as will be hereinafter more fully described, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is a side elevation, partly in section, of a car-truck provided with my improved brake; Fig. 2, a detail top plan view of a certain brake-controlling ring and of the plate or frame supporting the same, and Fig. 3 a detail view of a certain forked lever and the rod operated thereby.

The truck consists of the platform a and the frames b, which latter form the bearings for the axles c and d, on which are mounted the car-wheels e and f. Other parts, like shoe-brakes, springs, &c., are not shown in the drawings, as the same are not necessary and do not form a part of my invention.

On the inner axle d of the truck is mounted a disk g, provided in its periphery with a series of radially-arranged sockets h, adapted to be engaged by a locking-bolt i, downwardly projecting from block k, which latter is slidingly arranged in the rectangular frame or box m, suspended by means of braces m' from the platform of the truck, to which latter it may also be secured by bolts or in any other desired manner. To the top of said block is secured a rope or chain p', passing over pulleys p and p^2 and penetrating the platform a of said car and also a recessed plate a', embedded in and secured to said platform. To the free end of said chain or rope is secured a ring p^3, adapted to fit and rest in the recessed portion of said plate a', and which ring is used for the purpose of lifting the block k and the bolt i out of engagement with the socketed wheel or disk g.

The block k is provided on its front portion with a socket k^2, adapted to be engaged by the rounded end of the horizontally-arranged stem or rod n, which latter is slidingly mounted in the rectangular frame or box m and also in the cap n^2 of the cylindrical chamber n^3, which latter projects horizontally from the said rectangular frame or box m. Within said receptacle or cylindrical chamber n^3 is arranged a spiral spring n^5, surrounding the said stem or rod n and bearing with one end against the cap n^2 and with its other end against a collar n^4, secured on the said stem. An additional collar n' is arranged on the stem n and is adapted to bear against the outer portion of the cap n^2, to thus limit the rearward movement of said stem.

At or near the front portion of the stem n is arranged an annular groove n^6, engaged by the forked portion o of a hand-lever o', which latter penetrates the platform a and is pivotally secured thereto, as at o^2.

The forward upper portion of the block k is inclined, as at k', for the purpose of facilitating the forward pushing or moving of the rod n by means of the said block k when the latter is lifted up.

In operation when it is necessary to stop the vehicle to prevent collisions or accidents the hand-lever o' is swung backward on its fulcrum, thereby withdrawing the stem or rod n from the socket k^2 of the block k and allowing the latter by its own weight to drop down upon the periphery of the disk or wheel g, and the moment one of its sockets h is in alinement with the bolt i the latter will drop into said socket and thus prevent further rotation of the axle d, as will be manifest. After the vehicle has been stopped the block k is again

returned to its normal position by pulling the chain or rope p' until the rounded end of the stem n again engages the socket k^2 and thus locks the said block k and bolt i.

I do not intend to limit myself to the precise construction as shown and described, as various alterations can be made without changing the scope of my invention; but

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the truck of a vehicle and the axles of its wheels, of a disk mounted on one of said axles and provided in its periphery with a series of radially-arranged sockets, a block slidingly supported from the platform and provided in one of its sides with a socket or recess, a bolt projecting from the lower portion of said block and adapted to engage one of the sockets in said disk, a spring-controlled stem slidingly supported from the platform and adapted to engage the socket in said block, means—such as a chain for returning said block and bolt to normal position, and means for operating the spring-controlled stem or rod to withdraw the same from the socket or recess in the block, substantially as and for the purposes described.

2. The combination with a truck of a vehicle and with its axles, of a disk mounted on one of said axles and provided in its periphery with a series of radially-arranged sockets, a frame supported by said truck, a block slidingly arranged in said frame, a bolt carried by said block and adapted to engage one of the sockets in said disk, a spring-controlled stem or rod slidingly arranged in said frame and adapted to lock said block in its normal position, means—such as a chain for lifting said block into its normal position, and means for operating the spring-controlled stem or rod, substantially as and for the purposes described.

3. The combination with a truck of a vehicle, and the axles carried thereby, of a disk mounted on one of said axles and provided in its outer periphery with a series of radially-arranged sockets, a frame supported by the truck, a block slidingly arranged in said frame and carrying a bolt adapted to engage one of said sockets in the disk, said block being provided with a socket or recess, a spring-controlled stem slidingly arranged in said frame and adapted to engage the socket in the block, means—such as a chain for returning said block and bolt to normal position, and means for operating the spring-controlled stem or rod, substantially as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 27th day of August, 1897.

PHILIP CASEY, JR.

Witnesses:
WM. D. BELL,
PHILIP CASEY.