

R. H. MINICH.
CAR BRAKE OPERATING MECHANISM.
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996,111.

Patented June 27, 1911.

Fig. 1.

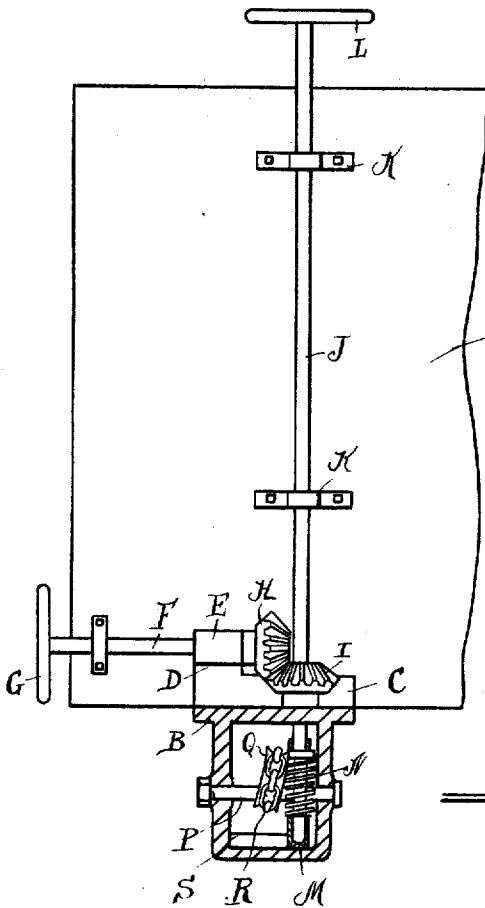
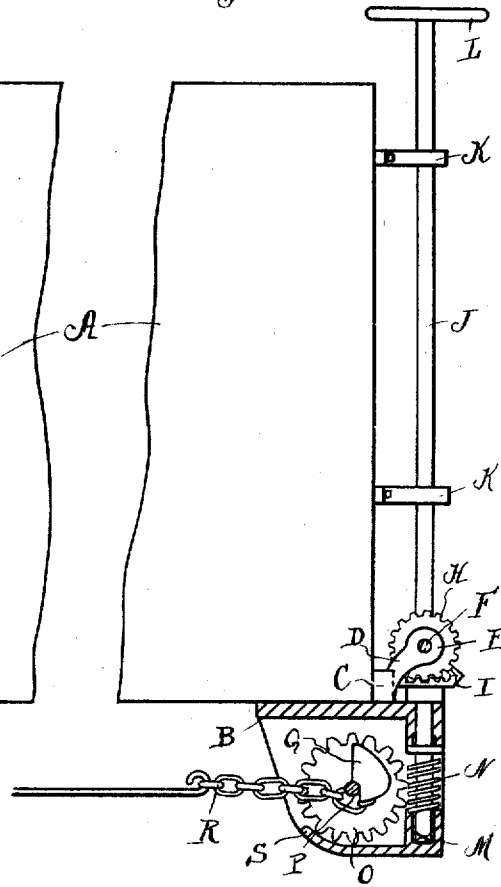


Fig. 2.



WITNESSES

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CAR-BRAKE-OPERATING MECHANISM.

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To all whom it may concern:

Be it known that I, RUSSELL H. MINICH, citizen of the United States, residing at Allentown, in the county of Lehigh and State of Pennsylvania, have invented a certain new and useful Improvement in Car-Brake-Operating Mechanism, of which the following is a specification.

My invention relates to a new and useful improvement in brake operating mechanism, and has for its object to provide an exceedingly simple and effective device of this character which will be inexpensive yet strong and durable, the style here shown being especially designed for a car without a bumper beam.

Another object of the invention is to provide a device of the character described whereby the brake may be applied or released from the top or side of a car.

A further object of the invention is to provide a simple and effective mechanism for retaining the brake handle or wheel in a fixed position after it has been moved, without the use of a ratchet wheel, pawl, dog or similar device.

A still further object is to provide means for quickly taking up the slack in the connecting cable or chain.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an end view of a portion of a car showing my improved brake mechanism applied thereto, the casing being in section, and Fig. 2, a side elevation thereof, the casing being in section.

In carrying out my invention as here embodied, A represents a car, the style here represented being one without a bumper beam. Beneath the car at the end thereof is mounted the casing B, having the rear end open and provided with an extension C which rests against the end of the car to prevent its being forced inward should it come in contact with some outside object. With the extension C is formed an integral bracket D,

having a bearing E for the shaft F, which extends beyond the side of the car, and has a hand wheel G mounted thereon. On the opposite end of this shaft is mounted a bevel gear H which meshes with the bevel gear I mounted upon the shaft J, said shaft being held in a vertical position by the metallic straps K and extending above the top of the car, at which point it is provided with a hand wheel L. The lower end of the shaft J extends into and is journaled in the casing B the end thereof resting upon the bearing M. On this shaft is also mounted the worm N, which meshes with the gear O mounted upon the horizontal shaft P, said shaft being journaled in the sides of the casing.

On the gear O is mounted a cam block Q to the highest portion of which is secured one end of the brake rigging R. The cam block Q takes up the slack in the brake rigging as soon as the shaft is partially revolved, so that it requires no wasted energy in bringing the parts to their operative positions.

The bottom of the casing B is turned up, as indicated by S forming a chamber to hold a lubricant so that the bearings are always properly lubricated.

From the foregoing description it is apparent that when either of the wheels G or L is turned the brake rigging R will be operated, the flexible portion thereof engaging the cam block Q until it is filled, at which time it runs upon the shaft P. By the use of the worm N and the gear O the brake mechanism can be easily operated from either the top or side of the car and it is unnecessary to have the ordinary ratchet wheel and pawl because the gear O will not operate the worm N.

Of course I do not wish to be limited to the exact details of construction here shown, as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful, is—

1. In a car brake mechanism, the combination with a car and the brake rigging thereof, of a casing mounted on the under side of the car on one end thereof, the bottom of said casing being turned up at one end to form a lubricant chamber, a horizontal shaft journaled in the side of said casing, a gear mounted on said shaft, a cam block mounted on one side of the gear to which is

attached the flexible end of the brake rigging, a vertical shaft, the lower end being journaled in the casing, the upper end extending above the car and having a hand wheel mounted thereon, a worm mounted on said shaft and meshing with the gear, a bevel gear mounted upon said shaft, another shaft extending to the side of the car having a hand wheel mounted thereon, and another bevel gear mounted on said shaft and meshing with the first named bevel gear.

2. In combination with a car and the brake rigging thereof, a casing having the rear end open mounted beneath a car at one end thereof, an extension formed therewith adapted to rest against the end of the car, a bracket formed integral with said extension provided with a bearing, a shaft journaled in said bearing and extending to the side of the car, a hand wheel mounted thereon, a bevel gear mounted on the inner end of

said shaft, a vertical shaft passing through the casing and journaled therein, the upper end extending above the top of the car, a hand wheel mounted on the upper end, metallic straps for holding said shaft in position, a bevel gear mounted on said shaft and meshing with the first named bevel gear, a worm also mounted on said shaft, a horizontal shaft journaled in the sides of the casing, a gear mounted thereon adapted to mesh with the worm, and a cam block mounted on the side of the gear, to which is attached the flexible end of the brake rigging.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

RUSSELL H. MINICH.

Witnesses:

THOS. E. RICKERT,
RUSSEL H. WINSCH.