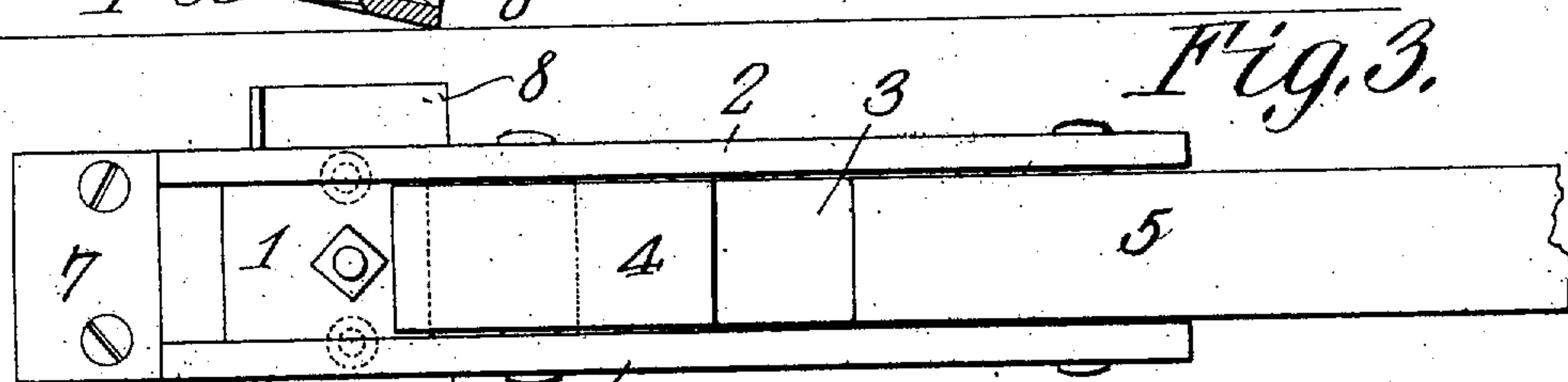
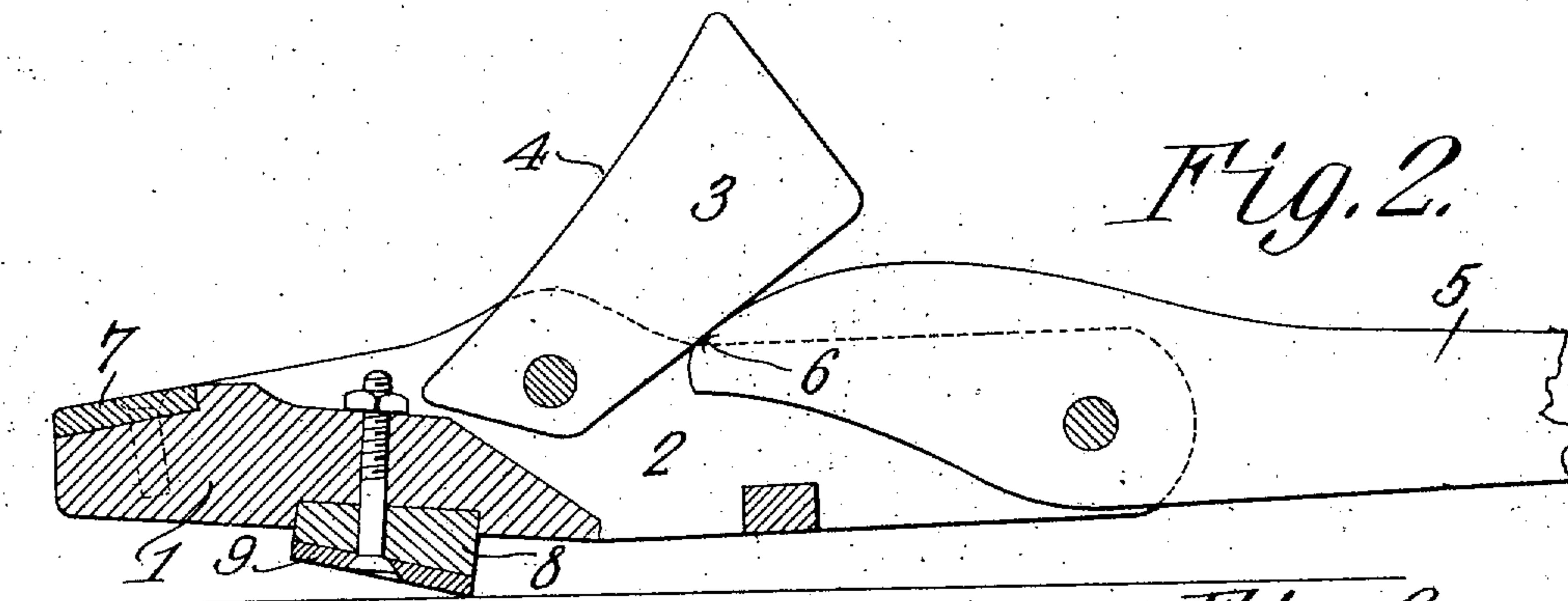
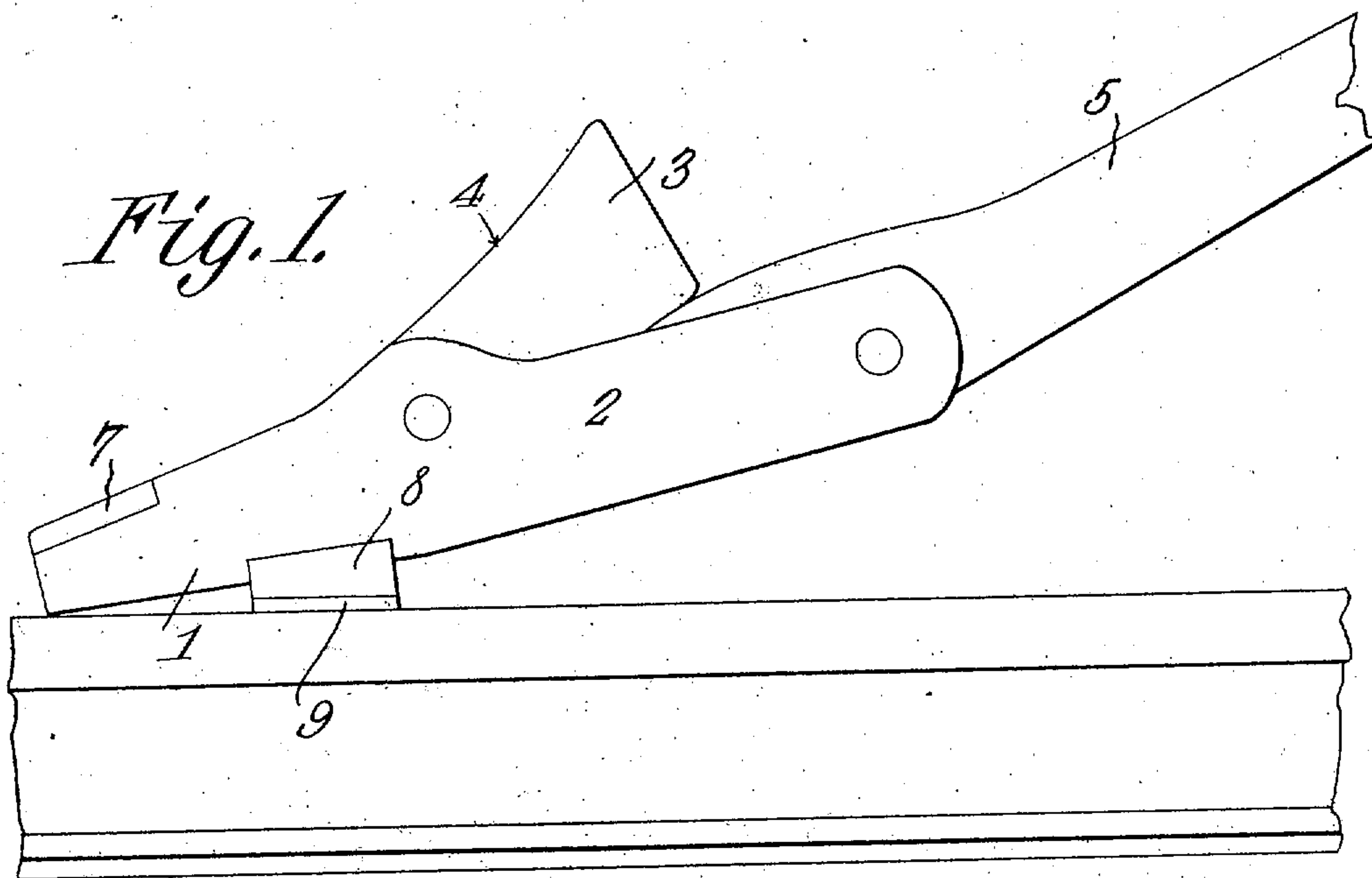


No. 850,154.

PATENTED APR. 16, 1907.

R. F. HAGEMAN.
CAR MOVER.

APPLICATION FILED DEC. 26, 1906.



WITNESSES.

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UNITED STATES PATENT OFFICE.

RANDOLPH F. HAGEMAN, OF NEW MADISON, OHIO.

CAR-MOVER.

No. 850,154.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed December 26, 1906. Serial No. 349,474.

To all whom it may concern:

Be it known that I, RANDOLPH F. HAGEMAN, a citizen of the United States, residing at New Madison, in the county of Darke and State of Ohio, have invented a new and useful Car-Mover, of which the following is a specification.

This invention has reference to improvements in car-movers; and its object is to provide such a device with means for gripping the rail without the necessity of using sharp or pointed gripping means which have to be sharpened from time to time; and it consists, essentially, of a shoe which rests upon the track and carries a block intended to bear against the wheel-rim and is operated by a lever conspiring with said block to produce a compound action, whereby a great leverage is obtained and a heavy car may be moved with comparatively little effort on the part of the operator. In conjunction with the shoe there is a block intended to rest upon the rail, and this block is faced with antislipping material which will grip a rail so firmly by friction alone that slipping is prevented without the necessity of biting into the rail, as has heretofore been the case.

The improved car-mover is illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side view of the device applied to a car-wheel. Fig. 2 is a longitudinal section of the same in a position to force the car forward, and Fig. 3 is a top plan view.

Referring to the drawings, there is shown the shoe 1, consisting of two wings 2, joined at their front ends. These wings have pivoted between them about midway of their length a block 3, having one face 4 curved on the arc approximately of the curvature of the car-wheel rim. Pivoted between the wings at the rear end of the shoe is a lever 5 of sufficient length and having a shorter end formed into a curved face merging into a short cam-shaped nose 6, which curved face and nose are arranged to bear in succession against the rear face of the block 3 above the pivot-point of the block as the outer end of the lever is depressed in such manner that this curved face and the nose into which it merges will roll along the rear face of the block 3 from the outer free end of this face toward the pivotal point of the block. The lever 5 and block 3 coact to form a compound lever of great power, while the rolling contact between them prevents undue wear and

reduces the force necessary to produce the result desired by the use of the device because frictional movement between the lever and block is eliminated.

The front end of the shoe is provided with a hard steel plate 7, secured therein and in position to be inserted between the wheel and the rim close to the point where the wheel rests upon the rim.

The bottom of the shoe is recessed, as shown, at a point in front of the pivot of the block 3, and into this recess is set a block 8, having its lower surface inclined to the plane of the bottom of the shoe 1 and extending below the same. This inclined portion of the block 8 is faced with some hard non-slipping material—such as vulcanized fiber, rubber, hard wood, or any other suitable material 9—which will grip the bearing-surface of a rail without slipping thereon.

When it is desired to move a car, the shoe is inserted with its front end or nose close under the wheel and the facing 9 resting flat upon the rail-tread. In this position the lower end or heel of the block 3 will also rest against or close to the wheel-rim, and in order to utilize the shoe in the manner to be hereinafter stated the front end of the upper surface of the same, as well as the face of the block 3, is curved on an arc of approximately the curvature of the wheel-rim. On depressing the outer end of the lever 5 the block 3 is forced around its pivot, so that its upper end is moved in a forward direction. The facing of the block 8, gripping the rail-tread firmly, and the more firmly the greater the pressure brought thereon, prevents the device from moving rearwardly, and the car-wheel is therefore forced forward. Because of the compound action of the leverage between the lever 5 and block 3 comparatively little effort is required to move the car. In addition to the action of the lever 5 and block 3 the shoe 1 will also coact with the lever 5 to constitute a lever moving about the block 8 as a fulcrum, and the plate 7 will then be forced against the wheel-rim and the whole device in this condition will act as an ordinary pinch-bar.

Car-movers as heretofore constructed have been provided with a biting-tooth or some such similar means for gripping the rail, and these means quickly become dulled or broken and must be removed or resharpened. With my antislipping facing this is never necessary, and consequently the car-mover

when constructed in accordance with my invention is always in condition for use and no part needs to be removed or replaced in order to put the device into operative condition.

I claim—

1. A car-mover comprising a shoe arranged for engagement with the rail, a wheel-engaging block pivoted at its lower end to the shoe above and at the rear of the point of engagement of the latter with the rail, and a lever fulcrumed to the shoe at a point to the rear of the wheel-engaging block and provided with a cam-shaped nose coacting with the rear face of the block above its pivotal point to have rolling contact with the block from its upper end toward its fulcrum as the lever is depressed.

2. A car-mover comprising a shoe, an extended frictional gripping-face for the rail rigidly secured to the shoe, a wheel-engaging block pivoted at its lower end to the shoe above and to the rear of the gripping-face of the latter, and a lever fulcrumed to the shoe at a point to the rear of the wheel-engaging block and provided with a cam-shaped nose

engaging the rear face of the block above its pivotal point and coacting with said block to have rolling contact therewith and to approach the fulcrum of the block as the lever is depressed.

3. A car-mover comprising a shoe arranged for engagement with a rail, a lever fulcrumed at one end of said shoe and having its short end formed with a cam-shaped nose, a wheel-engaging block pivoted in the shoe and having its rear face in the path of the cam-shaped nose of the lever, a block having its lower surface inclined to the plane of the bottom of the shoe and provided with an extended gripping-face for engagement with the rail, said block being rigidly secured to said shoe, and a hard wearing-plate secured to the front end of the shoe.

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

RANDOLPH F. HAGEMAN.

Witnesses:

EVAN DOWLAR,
N. OSCAR BROWN.