



# UNITED STATES PATENT OFFICE.

VIKTOR GUSZTÁV, OF VIENNA, AUSTRIA-HUNGARY.

## CAR-MOVER.

No. 878,381.

Specification of Letters Patent.

Patented Jan. 4, 1908.

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*To all whom it may concern:*

Be it known that I, VIKTOR GUSZTÁV, engineer, a subject of the King of Hungary, and a resident of Vienna, in the Empire of Austria-Hungary, I. Schottenring 25, have invented an improvement in Car-Movers; 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.

The invention relates to a device for moving cars upon tracks, which is designed in such a manner that the hand-lever may be swung laterally in order that the person using the car mover may stand either between or outside of the track.

The object of the invention is a car mover the head of which is fulcrumed to the head of another lever, which I shall name the acting lever, which carries the thrust-block acts upon it and is pivotally connected with the base plate, the pivoting connections of the hand-lever and the head of the acting lever being arranged in such a manner to prevent tilting momentums which would tend to uplift the base plate from the rail when depressing the hand-lever; and in order to insure this I arrange in an inclined position to the horizontal plane, the one pivot around which the hand-lever turns, and horizontally the other pivot around which the acting lever turns, the one pivot being placed substantially obliquely above the other one; instead of the two pivots I may use a cross or "Cardan" joint. That way I do away with the well-known drawback of car-movers, provided with a laterally turning hand-lever, which have both, the pivot of the hand-lever and the pivot of the acting lever arranged at a horizontal distance from each other which distance creates a tilting momentum when the hand-lever is depressed, whereas such tilting momentum is avoided according to my improved construction. To make the whole stroke of the hand lever useful for the purpose of pushing a car I employ a thrust block in the shape of an angle-lever which is pivotally arranged so that for the whole stroke it bears upon the tire and follows the same whereas the thrust block of other car-movers bears upon the tire for a part of the stroke only and exerts no more than a momentary impetus.

In the drawings Figure 1 is a vertical side elevation of the car mover, Fig. 2 a plan view, Fig. 3 a cross section along the line

A--A of Fig. 1 thereby showing the position of the car-mover upon the rail, and Fig. 4 illustrates the construction of the car mover with a Cardan joint.

The thrust block 1 is in the shape of an angle-lever with preferably roughened gripping surfaces and pivotally connected at 2 with the acting lever 3. The pin 2 is horizontally located in the forked end of the lever 3 and therefore the thrust block or gripping lever 1 can swing in a vertical plane, its movement being limited by a suitably arranged pin 4. The other end of the acting lever 3 is formed into a forked head, wherein a pivotal bolt 5, connecting the hand-lever 6 with the acting lever 3 is located, its axis being in a vertical plane so that the hand-lever 6 may be swung laterally, i. e., across of the direction of the rail. The head of the lever 3 is pivotally connected at 7 with the base plate 8, the pivot 7 being horizontally arranged and in the operating position of the device obliquely below the bolt 5, which is in an inclined position to the horizontal plane. By this arrangement the hand-lever 6 is fulcrumed to the acting lever above the pivot 7 and therefore no arm exists between hand-lever and base plate and no tilting momentum, tending to uplift the base plate from the rail, is created in depressing the hand-lever. The head of the acting lever 3 carries a guard hoop 9 which serves as a guide for the car mover when it follows the rolling tire. The base plate is provided at its lower side with clamping studs or preferably wedge-shaped iron fasteners 10 to insure a firm hold of the plate upon the rail-head. Instead of providing two pins obliquely located above each other, I use a cross or Cardan joint, as shown in Fig. 4, whereby the hand-lever is connected with the head of the acting lever and, at the same time, the latter lever pivotally secured to the base plate; since the two pivoting axes intersect each other no tilting momentum, tending to uplift the base plate, can occur. The head of the acting lever 11 is pivotally secured by the pin 12 in the frame 13 and located in the forked head 14 of the hand-lever which turns around the pivots 15, 15; these pivots are arranged upon the head of the acting lever which carries the angle-lever-shaped thrust block.

When using the device it is placed upon the rail 9' and held in position by means of the clamping studs or plates 10 which have a firm grip upon the rail head. As soon as the



lever 6 is depressed in the direction of the arrow 17 the lever 3 is lifted and thereby the thrust block forced against the tire to push the same forward. If several cars are coupled upon the track the hand-lever is swung, around the pin, out of the direction of the rail, as indicated by dotted lines in Fig. 2, so that the car mover can be operated sidewise. The shape of the thrust block and the pivotal arrangement of the same permit of a movement of the block 1 behind the tire and thereby of a longer grip of the thrust block upon the tire lasting during the whole lifting motion of the block, so that one stroke will push the car for a longer distance.

What I claim as my invention and desire to secure by Letters Patent is:

1. A car mover comprising an acting lever, and a hand-lever the head of said acting lever pivotally connected with a base and a pivot within said head, located obliquely to and above the said pivotal connection and the hand-lever fulcrumed upon said pivots, substantially as described.

2. A car mover comprising a hand-lever and an acting lever with a forked lever head, horizontal pivots to said head and an upright pivot secured in said head, said pivot connecting the hand-lever to the acting lever, substantially as described.

3. A car mover comprising an acting lever, an angle-lever pivotally secured to the front end of the said acting lever and a hand-lever to the head end, a pivotal bolt in the said head end and a horizontal pivot arranged be-

low and located obliquely to the said pivotal bolt, substantially as described.

4. In a car mover an angle shaped thrust block pivoted at its vertex or angular point on the acting lever which is pivoted on the base plate, and a hand lever carried by said acting lever, substantially as described.

5. In a car mover a thrust block in the shape of an angle-lever pivoted to the front end of the acting lever, an upright pivot in the head end, a hand-lever upon said upright pivot and horizontal pivots below and obliquely to the said upright pivots, substantially as described.

6. In a car mover a hand-lever and an acting lever, a Cardan joint connecting both levers and securing the acting lever to the base, substantially as described.

7. In a car mover a hand-lever and an acting lever, a Cardan joint connecting both levers and securing the acting lever to the base in combination with an angle-lever-shaped thrust block, substantially as described.

8. In a car mover a hand-lever fulcrumed upon the acting lever, pivots upon the head of the acting lever and a pin in the said head connecting it with a base, and an angle-lever-shaped thrust block pivoted to the said acting lever, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

VIKTOR GUSZTÁV.

Witnesses:

ADN. SELENFREUND,  
ARMIN JÁRMAD.