

R. MILLER.
CAR MOVER.

(Application filed Oct. 26, 1901.)

(No Model.)

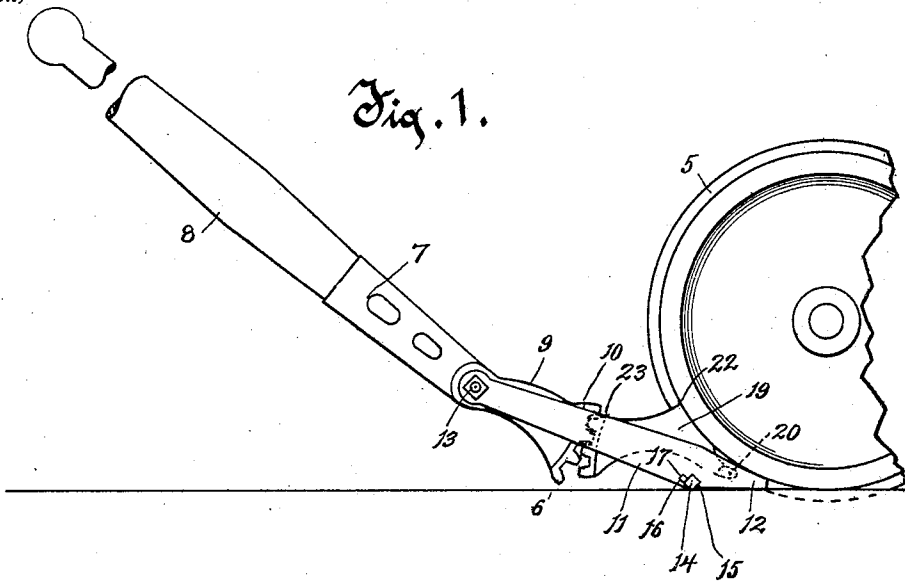


Fig. 2.

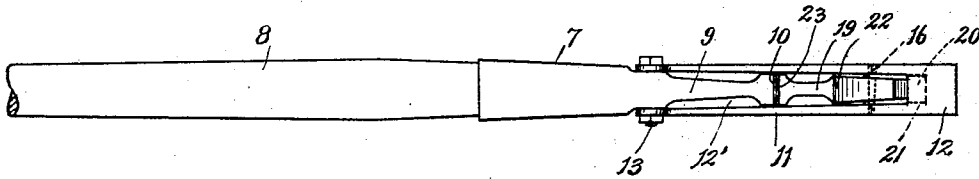


Fig. 3.

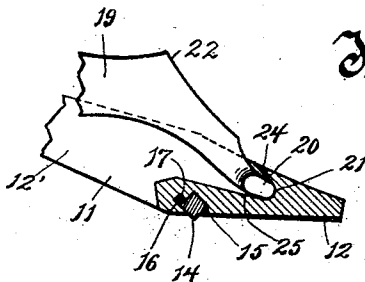
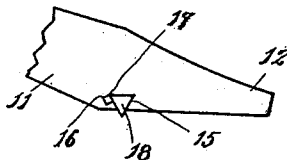


Fig. 4.



Witnesses.

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RICHARD MILLER, OF APPLETON, WISCONSIN.

CAR-MOVER.

SPECIFICATION forming part of Letters Patent No. 710,491, dated October 7, 1902.

Application filed October 26, 1901. Serial No. 80,079. (No model.)

To all whom it may concern.

Be it known that I, RICHARD MILLER, residing at Appleton, in the county of Outagamie and State of Wisconsin, have invented a new and useful Improvement in Car-Movers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in car-movers.

The primary object of the invention is to provide an improved car-mover of such construction that very little force is required for moving or starting the car and in which also the necessity of using a multiplicity of pivotal connections is avoided and the number of parts employed in the device is reduced to the minimum.

With the above primary object and other incidental objects in view the invention consists of the devices and parts or their equivalents as hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of the invention, showing the same applied to a car-wheel ready for effecting the moving of the car. Fig. 2 is a plan view of the invention. Fig. 3 is a side elevation of a fragment of the device, showing the point or nose of the pinch-bar in section; and Fig. 4 is a side elevation of the nose or point of the pinch-bar, illustrating a modified form of fulcrum.

Referring to the drawings, the numeral 5 indicates a portion of a car-wheel, and 6 the rail on which it runs.

The numeral 7 indicates the main lever of the car-mover, which is formed with a socket to receive therein the inner end of the handle portion 8. The main lever is provided with a forward extension 9, which is formed or provided at its end with a toothed segment 10.

The pinch-bar is indicated by the numeral 11, and this bar is provided with a pointed forward end or nose 12, adapted to be inserted between the rail and the car-wheel. The pinch-bar is bifurcated rearwardly from the nose 11, as indicated by the numeral 12', and the rear ends of the furcate arms straddle the main lever at the rear end of the forward extension 9 thereof and are pivoted thereto on a transverse pivot-pin 13.

The fulcrum upon which the car-mover

turns consists of a rectangular block 14 of steel or other desirable material, the said block extending crosswise of the pinch-bar and secured thereto in a similarly-shaped recess 15 therefor in the under side of the nose portion of said pinch-bar and in such manner that one angle of the block projects below the under side of the pinch-bar, so that when the device is in use the projecting angle will rest on the rail of the track. I provide improved means for securing this fulcrum, consisting of a tapering or wedge-shaped key 16, fitting in a tapering slot 17 therefor and bearing against the fulcrum-block. From this construction it is obvious that when one angle of the fulcrum after continued use becomes worn the fulcrum may be readily withdrawn simply by removing the wedge-key and said fulcrum then reinserted and again secured by the wedge-key in such manner as to bring another angle into operative position.

In Fig. 4 I show a slightly-modified form of fulcrum, consisting of a triangular-shaped block 28 instead of a rectangular block, as in the other figures of the drawings.

The numeral 19 indicates a pushing-lever which is provided at its forward end with a rounded portion 20, which fits and turns in a rounded socket 21, provided in the nose of the shoe, and thereby forming a pivotal point of turning for the pushing-lever. It is obvious that this forward end of the lever might be pivoted to the nose of the shoe by a pivot-pin; but I prefer to adopt the construction shown, inasmuch as thereby I avoid the use of a separate pivot and at the same time provide for the more ready dismantling of the parts of the device. This pushing-lever works in the slot formed by the bifurcated portion of the pinch-bar and is provided with a projection 22 on its upper edge, adapted for bearing against the periphery of the car-wheel. The rear end of the pushing-lever is provided with a toothed segment 23, which is in mesh with the toothed segment 10 of the forward extension 9 of the main lever.

In the operation of the invention the device is applied to the car-wheel as shown in Fig. 1. The free end of the handle is then depressed, and this causes the pinch-bar to turn on its fulcrum. With this turning of

the pinch-bar the pushing-lever, by reason of the engagement of the toothed segments 10 and 23, is moved simultaneously on its pivot and the projection 22 thereby pressed against the wheel, and in this manner the car is moved with the necessity of the expenditure of but little force.

It will be seen that by my construction but one pivot-pin—*i. e.*, the pivot-pin 13—is actually necessary and that also I provide a car-mover which while composed of a minimum number of parts is yet capable of effecting most efficient work. I would also call attention to the fact that the movement of the forward end of the pushing-lever upwardly and downwardly is limited by contact with stops 24 and 25, respectively, the stop 24 being formed by the upper edge of the socket 21 and the stop 25 by the bottom of said socket.

What I claim as my invention is—

1. In a car-mover, a main lever provided at its forward end with a segment-gear, a pinch-bar pivoted to the main lever, a lever of the second class pivotally supported by the pinch-bar and having its rear end provided with a segment-gear in mesh with the segment-gear of the main lever.

2. In a car-mover, the combination of a main lever provided at its forward end with a segment-gear, a pinch-bar provided with a socket, and a pushing-lever having its forward end fitting and turning in the socket of the nose of the pinch-bar, its upper edge adapted to be brought into engagement with the periphery of a car-wheel, and its rear end provided with a segment-gear in mesh with the segment-gear of the main lever.

3. In a car-mover, the combination of a

main lever provided at its forward end with a segment-gear, a pinch-bar having its forward end or nose adapted to be inserted between a car-wheel and the rail of a track, and said pinch-bar being bifurcated rearwardly from the forward nose portion, the furcate parts straddling and pivoted to the main lever, and a lever of the second class pivoted to the pinch-bar and working in the slot formed by the bifurcation of the pinch-bar, said second-class lever provided at its rear end with a segment-gear meshing with the segment-gear of the main lever.

4. In a car-mover, a main lever provided at its forward end with a segment-gear, a pinch-bar pivoted to the main lever, a lever of the second class pivoted to the pinch-bar and provided with a segment-gear adapted to mesh with the segment-gear of the main lever, and means on said pinch-bar for limiting the movement of the second-class lever.

5. In a car-mover, the combination of a main lever provided at its rear end with a socket, and at its forward end with a segment-gear, a handle fitted and secured in the socket of the main lever, a pinch-bar pivoted to the main lever, and a lever of the second class pivoted to the pinch-bar, and having its upper edge adapted to be brought into engagement with a car-wheel, and having its rear end provided with a segment-gear in mesh with the segment-gear of the main lever.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD MILLER.

Witnesses:

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