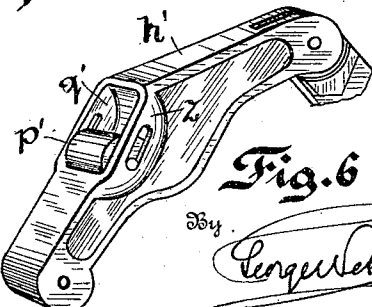
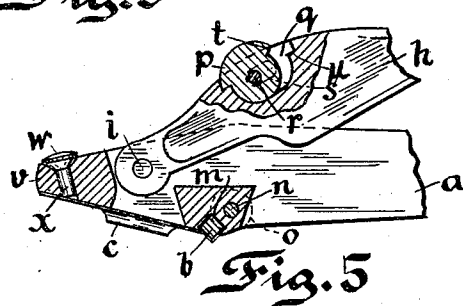
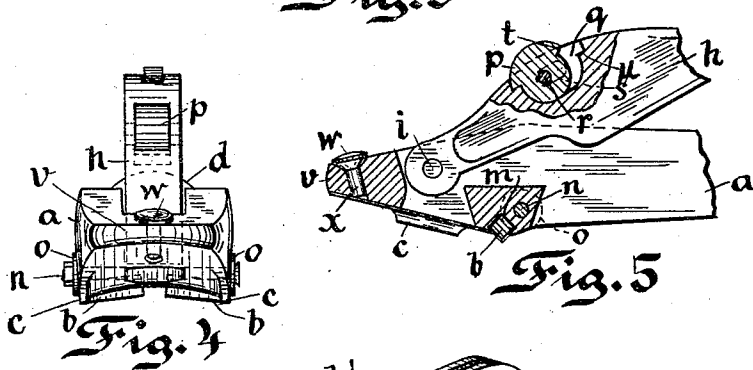
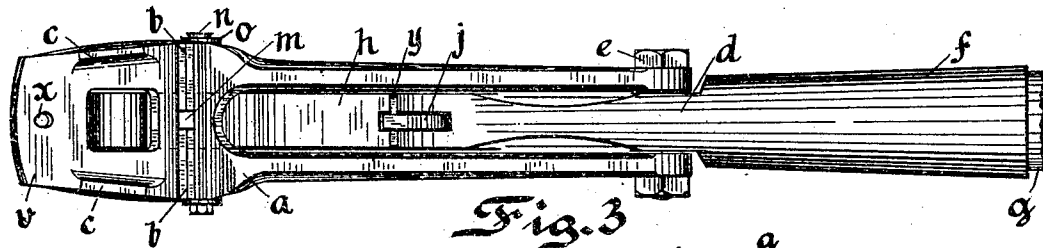
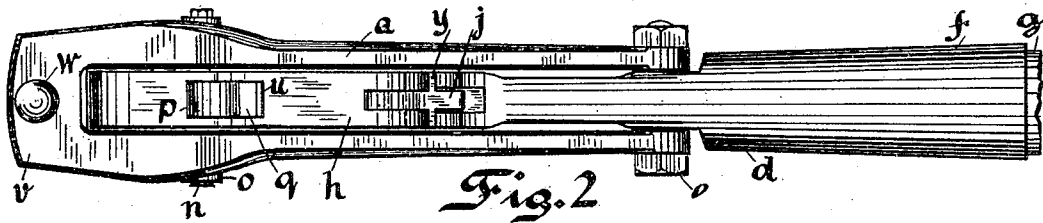
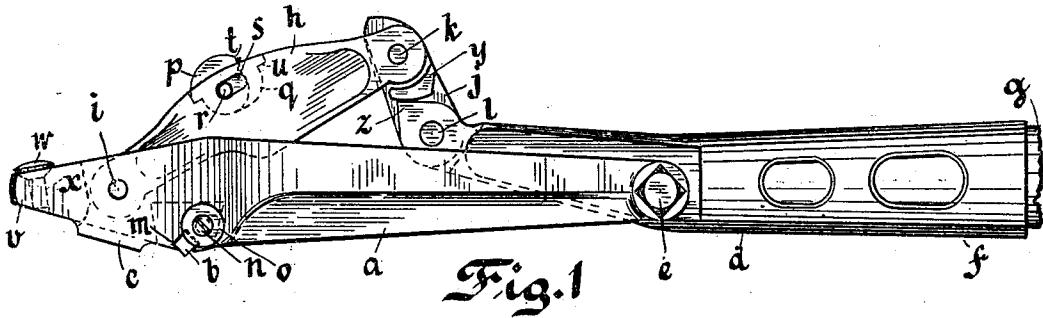


W. McLEISH.
CAR MOVER.

APPLICATION FILED MAR. 10, 1909.

938,328.

Patented Oct. 26, 1909.



Witnesses
A. J. Andrews
Wilhelmina D. Schenck

Fig. 6 William McLeish,
Inventor
By George W. Moore
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM McLEISH, OF APPLETON, WISCONSIN.

CAR-MOVER.

938,328.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed March 10, 1909. Serial No. 482,501.

To all whom it may concern:

Be it known that I, WILLIAM McLEISH, of Appleton, Wisconsin, have invented a Car-Mover, of which the following is a specification.

This invention relates to devices for moving railway cars by hand, and more particularly to that type of car-mover which comprises a plurality of pivoted elements adapted to coast to a greater advantage to propel the car by inserting between the car-wheel and rail than a simple crow or pinch-bar.

The object of the present invention is to provide improved means for holding in place the fulcrum-blocks; for eliminating sliding-friction between the car-wheel and the pushing-element of the car-mover; and for limiting the downward pivotal movement of the operating-lever with respect to the base-block so as to bring the latter into play for propelling the car.

My invention will best be understood by a consideration of the following detailed description thereof taken in connection with the accompanying drawings, wherein,

Figure 1 is a side view; Fig. 2 a plan; Fig. 3 a bottom plan; and Fig. 4 an end-view of the car-mover; and Fig. 5 is a longitudinal central section through the active end of the car-mover. Fig. 6 is a perspective view of a modified form of pushing-bar and roller.

In these drawings every reference character refers always to the same part.

The device as illustrated comprises four main elements, to wit, the base or fulcrum-element *a*, which is provided on its lower side with angular fulcrum-blocks *b* of hardened steel set edgewise to the track, and with a pair of side-lugs *c* adapted to hug over the sides of the rail-tread and prevent side-wise slipping, said member *a* being forked at its rear-end as shown; the operating-lever *d* which is pivoted upon a bolt *e* to the rear-end of the base-member *a* and is provided with a socket *f* for receiving a wooden handle *g*; the pushing-bar *h*, which is pivoted upon a pin *i* near the front end of the base *a*; and a link-member *j* connecting the forked rear-end of the bar *h* and the forked front-end of the lever *d* by means of pins *k* and *l*.

The fulcrum-blocks *b* are two in number and are set at a small vertical angle to each other as clearly shown in the end-view, Fig.

4, so that their edges will more easily bite into the metal of the rail-tread, engaging the corners of said tread, and the socket-groove *m* in the member *a* being shaped to correspond. These blocks are inserted through the ends of the socket-groove, and must be taken out from time to time as the active edge wears down by use and turned around through 90 or 180 degrees to present a new edge; and to enable this to be done, and hold them in the socket-groove, I employ a transverse bolt *n* which passes through a hole adjacent and parallel to the socket-groove and is provided at each end with a plate or washer *o*, the latter being of sufficient size to extend over the end of the socket-groove and thus prevent the withdrawal or falling out of either fulcrum-block. To change the position of the fulcrum-blocks it is of course merely necessary to withdraw the bolt *n*.

The bar *h*, which acts by lateral pressure against the car-wheel, said pressure coming in the center of the bar and the latter being then raised by depressing the handle *g*, is provided with a roller *p* moving in an appropriate socket *q* in the upper face of the bar *h* and held in said socket by a transverse pin *r* the ends of which are free to move in slots *s* on the sides of the socket *q*. The roller *p* is preferably provided with shoulders *t* which coast with corresponding shoulders *u* on the ends of the socket and thus limit the amount of rolling movement. In operation, this roller *p* strikes the car-wheel and by rolling in its socket prevents any sliding friction upon the wheel and this renders it easier to move the car.

It will be understood that this type of car-mover is adapted to act in two ways to move the car, first in the manner mentioned by the direct pressure of the bar *h* upon the wheel and secondly by the action of the nose of the base-member *a*, which projects farther under the car-wheel and when it has been set in motion by the first action prolongs that motion to a greater extent, this action being similar to that of an ordinary pinch-bar. To provide against undue wear upon the nose *v* a removable wear-block *w* is provided which has a shank *x* fitting in a suitable hole in the nose *v* and an enlarged head adapted to take the direct pressure and wear of the car-wheel. The action aforesaid is brought about by limiting the rotative movement of the lever *d* with respect to the

base-member *a*, and this is accomplished by means of a pair of projecting lugs *y* upon the flanks of the link *j* which cooperate with a pointed nose *z* on the pivot-portion of the lever *d* in the manner illustrated in Fig. 1. When therefore the lever *d* has been depressed to the position shown, any further depression acts to turn the base-member *a*, raising the nose *v* thereof and thus acting upon the car-wheel in the manner aforesaid.

In Fig. 6 is shown a modified form of the pushing-bar, designated *h'*, this bar being formed with an angular bend or elbow in the center and being provided with enlargements *z* on the flanks of the socket *q'* in order to give the roller *p'* the broadest possible face. This roller is here formed without the shoulders *t*.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a car-mover, the combination of a base-member having a groove, a fulcrum-block fitting in and held by said groove, said block being inserted through the end of said groove, and a bolt mounted parallel to said groove and at the side thereof and carrying means extending over the edge of said groove whereby to hold said block in place therein.

2. In a car-mover, the combination of a base-member having an undercut transverse groove on the lower side thereof, a pair of fulcrum-blocks fitting in said groove and held therein, said blocks being inserted through the end of said groove, and a bolt mounted in a hole in said base-member parallel to and at the side of said groove; said bolt carrying at each end a part which extends over the ends of the groove and thereby holds said fulcrum-blocks in place.

3. In a car-mover, in combination with a base, a pushing-bar pivoted thereto, means for turning said push-bar so as to bring it against and propel a car-wheel, said pushing-bar having a socket, said socket having shoulders at its ends, and a roller fitting and rolling in said socket and having shoulders upon its periphery adapted to strike said shoulders on the socket, thereby limiting the rolling movement of said roller.

4. In a car-mover, in combination with a base, a pushing-bar pivoted thereto, means for turning said pushing-bar so as to bring it against and propel a car-wheel, said pushing-bar having a socket, said socket having shoulders at its ends, a roller fitting and rolling in said socket and having shoulders upon its periphery adapted to strike said shoulders on the socket, thereby limiting

the rolling movement of said roller, and a transverse-pin mounted in said roller and having its ends working in slots in said bar on the sides of said socket whereby said roller is held in place.

5. A car-mover comprising, in combination, a base or fulcrum-member, an operating-lever pivoted at one end thereof, a pushing-bar pivoted near the opposite end, and a link pivotally connecting the front-end of said lever with the rear-end of said bar; said link having on its sides projecting lugs and said lever having on its pivoted end corresponding projections which coact with said lugs to limit the rotative movement of said lever with respect to said fulcrum-member.

6. In a car-mover, in combination with a base, a pushing-bar pivoted thereto at one end, a lever-mechanism acting on the other end of said pushing-bar to turn it about said first-named end as a pivot, and a roller mounted on the active face of said bar intermediate between said ends and projecting from said face so as to take the pressure of the wheel.

7. In a car-mover, in combination with a member adapted to push upon the car-wheel, said member having a socket and slots in the sides of said socket, a roller mounted in said socket in position to strike the surface of the car-wheel, said roller having gudgeons running in said slots, whereby sliding friction between said member and said wheel is eliminated.

8. In a car-mover, in combination with a base, a pushing-bar pivoted thereto, means for turning said pushing-bar to bring it against and propel a car-wheel, and a roller mounted on said pushing-bar and having a free rolling movement thereon whereby sliding friction between said pushing-bar and the bar wheel is eliminated.

9. In a car-mover, in combination with a base, a pushing-bar pivoted thereon, means for turning said pushing-bar so as to bring it against and propel a car-wheel, said pushing-bar having a socket, a roller rolling freely in said socket and having its periphery projecting beyond the face of said pushing-bar, and means for retaining said roller in said socket without interfering with its rolling movement.

In witness whereof I have hereunto set my hand this sixth day of March, 1909.

WM. McLEISH.

Witnesses:

GEORGE W. COLLE,
A. G. KESSLER.