(No Model.)

C. L. BARNHART.

CAR MOVER.

No. 346,347. Patented July 27, 1886.

Fig. 1.

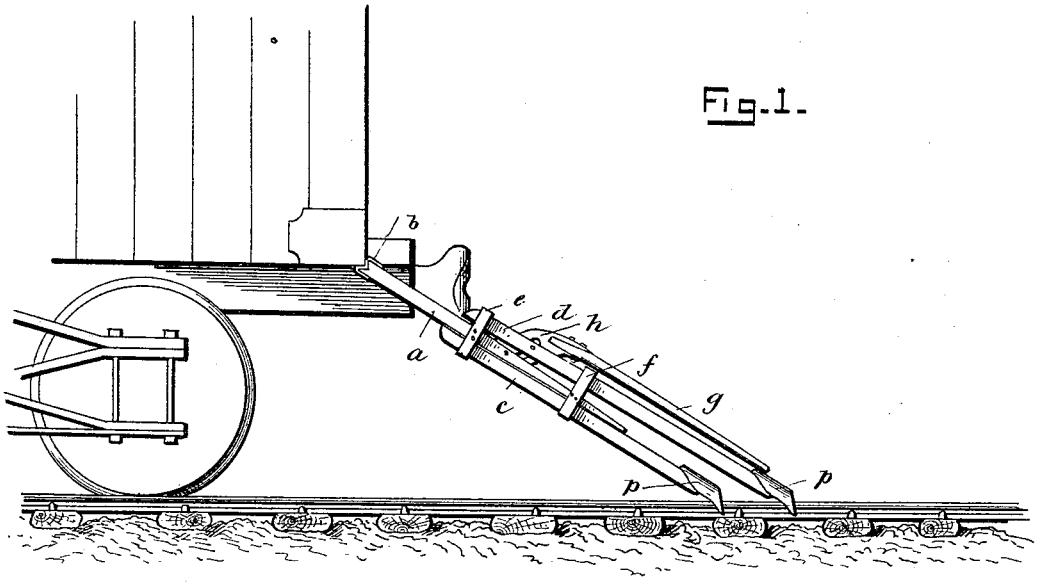
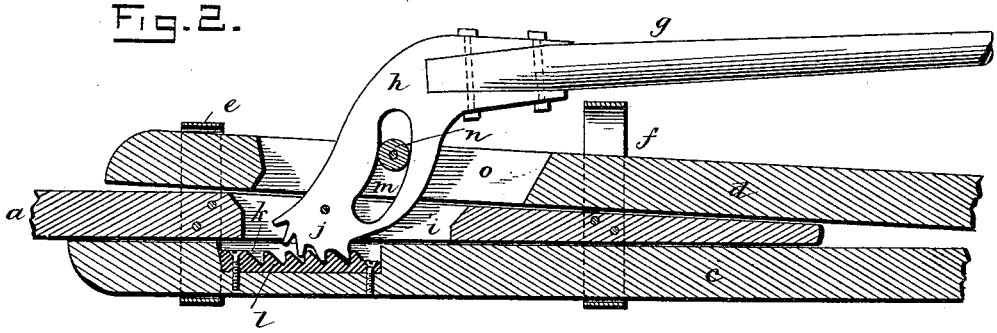


Fig. 2.



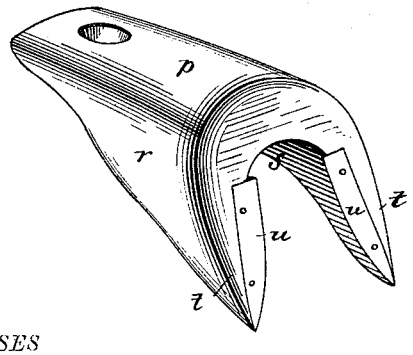


Fig. 3.

WITNESSES

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CLARENCE L. BARNHART, OF FLINT, MICHIGAN.

CAR-MOVER.

SPECIFICATION forming part of Letters Patent No. 346,347, dated July 27, 1886.

Application filed March 15, 1886. Serial No. 195,283. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE L. BARNHART, a citizen of the United States, residing at Flint, in the county of Genesee and State of Michigan, have invented certain new and useful Improvements in Car-Movers, of which the following is a full, clear, and exact description.

This invention relates to that class of devices used for moving cars on rails by hand; and the design of my invention is to afford a simple, strong, and efficient device applicable to the car to propel the same.

The invention consists of two legs strapped to a bar and given a walking motion by means of a lever pivoted to such bar, and connected to one leg by a toothed rack and segment, and to the other by a roller and cam-slot, the vibration of said lever upon its pivot serving to impart the walking motion to the legs, and thus move the car. These legs are shod with peculiar rail-gripping devices, all as hereinafter particularly set forth and claimed.

In the accompanying drawings, in the several figures of which like parts are similarly designated, Figure 1 is a side elevation of my device in position for action, and Fig. 2 is a longitudinal section of the connecting parts of the device on a larger scale. Fig. 3 is a perspective view of the rail-gripping device detached.

The bar *a*, which forms the foundation of my device, is provided with the notched end *b*, to engage the car at any suitable point—say the rear platform-timbers—and it is preferably beveled on its upper face to give clearance for the upper working-leg. The working-legs *c d* are secured to this bar *a* by metal straps or loops *e f*, rigidly secured to the bar and surrounding said bar and legs, and affording working-room for the legs. The operating-lever *g* for these legs is provided with a flat plate, *h*, which is pivoted in a longitudinal slot, *i*, in the bar *a*, and its lower end is made as a toothed segment, *j*, which projects into a guide-groove, *k*, in the leg *c*, in the bottom of which groove is a toothed rack, *l*, with which the said toothed segment meshes. A cam-slot, *m*, is made in the plate *h*, which engages a roller, *n*, in a slot, *o*, in the leg *d*. Now, it is obvious that if the lever *g* be moved back and forth or vibrated upon its pivot, the legs *c d* will be reciprocated longitudinally of the bar in opposite directions, or be given a walking motion; and hence, if the bar be placed against a resisting movable body—such as a car—and the legs be given a hold against an immovable body—for example, the rails—the vibration of the lever will cause the legs to move alternately, step by step, and repel the resisting body. These legs are designed to engage the rails of a railway, and their ends are shod with the rail-gripping devices *p*, consisting, in this instance, of the casting *r*, provided with a socket, *s*, to fit the ends of the legs, and forked to form the jaws *t*, and the active faces of these jaws are re-enforced with, preferably, steel plates *u*, securely fastened thereto, the jaws and their steel plates being shaped to fit and engage the head or tread of a railway-rail.

The straps *e f* serve to stiffen and brace the structure and confine the movement of the legs to a range coextensive with the desired movement.

The slots in the leg *d* and bar *a* and the guide-groove in the leg *c* serve to brace the lever and keep it in operative position by insuring a rectilinear movement thereof.

The device may be used as a propeller by engaging the bar with the car in a permanent manner, and carrying the motor-lever within range of its platform, and in this way a railway hand-car may be readily improvised.

What I claim is—

1. A car-mover comprising a bar, two legs secured thereto by straps fastened to the bar and surrounding the legs and bar, a motor-lever pivoted in a slot in the bar and having a toothed segment engaging a toothed rack in a guide-groove in one leg, and also having a cam-slot engaging a roller in a slot in the other leg, substantially as described.

2. The legs of a car-mover, each provided with the rail-gripping device, consisting of a socketed casting to engage the legs and a forked end re-enforced with steel plates to engage the rails, substantially as described.

In testimony whereof I have hereunto set my hand this 9th day of March, A. D. 1886.

CLARENCE L. BARNHART.

Witnesses:
GEO. M. WALKER,
DAVID P. HALSEY.