

(No Model.)

2 Sheets—Sheet 1.

C. ROBERTS.
HAND CAR.

No. 446,714.

Patented Feb. 17, 1891.

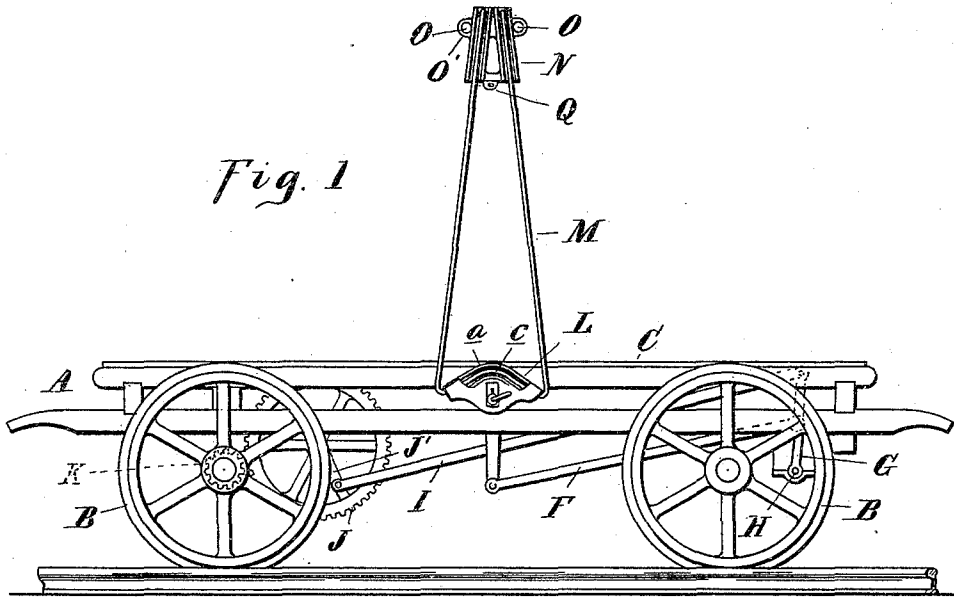


Fig. 1

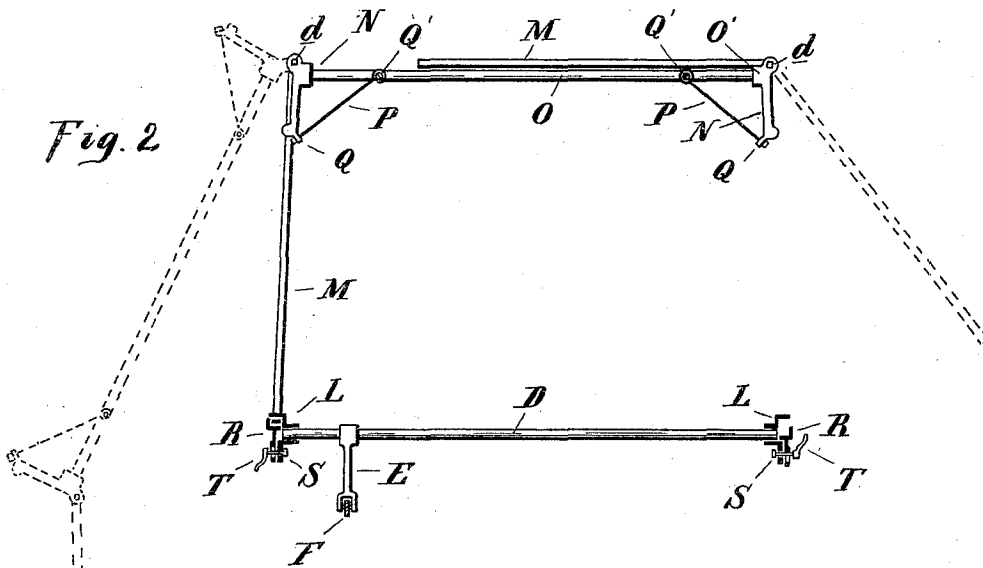


Fig. 2

Witnesses:

P. M. Hulbert

W. M. O'Grady

Inventor

Cyrus Roberts

By *Thos. Sprague* *Sol.*
Atty.

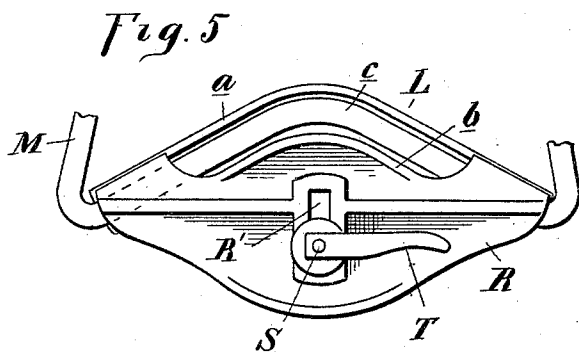
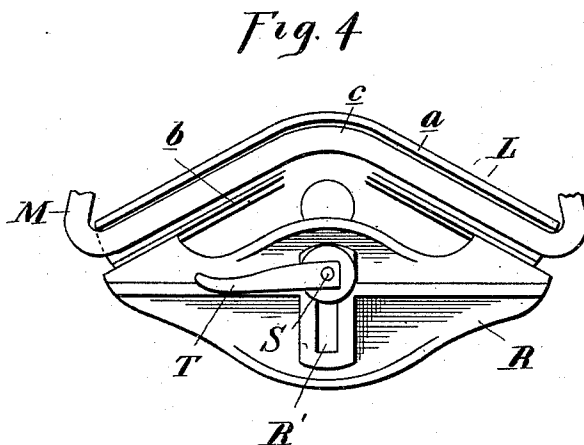
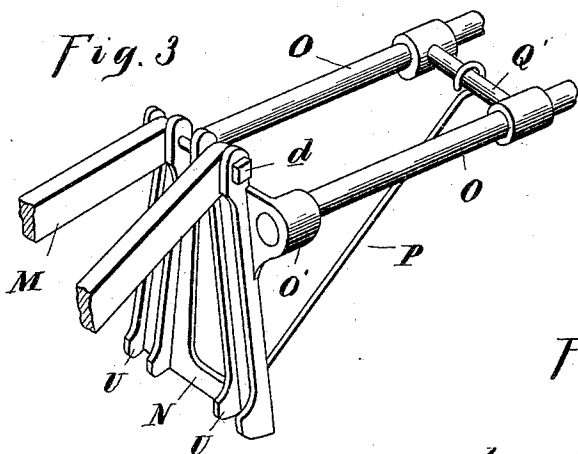
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2 Sheets—Sheet 2.

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HAND CAR.

No. 446,714.

Patented Feb. 17, 1891.



Witnesses:
P. M. Hulbert
M. B. Bogherly

Inventor:
Cyrus Roberts
 By *Thos Sprague & Co.*
Attys.

UNITED STATES PATENT OFFICE.

CYRUS ROBERTS, OF THREE RIVERS, MICHIGAN.

HAND-CAR.

SPECIFICATION forming part of Letters Patent No. 446,714, dated February 17, 1891.

Application filed July 14, 1890. Serial No. 358,753. (No model.)

To all whom it may concern:

Be it known that I, CYRUS ROBERTS, a citizen of the United States, residing at Three Rivers, in the county of St. Joseph and State of Michigan, have invented certain new and useful Improvements in Hand-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in hand-cars; and the invention consists in the peculiar construction and arrangement of the propelling mechanism whereby the car is adapted to be used for carrying ballast, ties, &c., and whereby it may be unloaded without taking off the driving mechanism by detachably securing together the parts of the actuating-frame; and, further, in the peculiar construction, arrangement, and combination of the various parts, all as more fully hereinafter described.

This invention is intended to be an improvement upon my application, Serial No. 344,185, filed March 17, 1890.

In the drawings which accompany this specification, Figure 1 is a side elevation of my improved car. Fig. 2 is a sectional elevation of the driving mechanism. Fig. 3 is an enlarged perspective view of one end of the handles. Fig. 4 is an enlarged elevation showing the lower end of one of the levers and the locking-plate. Fig. 5 is a similar elevation showing the locking-plate in its locked position.

A is the frame of a car of usual construction; B, the car-wheels; and C is the platform.

Directly below the platform and near the center of the car is journaled in suitable bearing the main drive-shaft D, which extends transversely beneath the platform.

The drive-shaft has secured to it the crank E, to which is secured the connecting-rod F, connected to the crank G upon a counter-shaft II, journaled in suitable bearings on the under side of the car-frame. The crank G has connected to its free end the rod I, which conveys motion to the drive gear-wheel J through the crank J'. This gear meshes with the pinion K upon one of the axles. These parts are constructed and operated as

shown and described in my application above referred to.

To the outer ends of the drive-shaft are secured the brackets L, which at their lower edge are provided with a curved recess formed between the flanges *a b*. This recess is of suitable shape to receive the lower bent portion *c* of the levers M, the upper end thereof being pivotally secured to the upper edge of the brackets N by the bolt *d*.

The brackets N are connected together by the horizontal handles O, which are supported in sockets O', formed in the brackets, and by the brace-rod P, secured in its lower end in the flange Q of the bracket and at its upper end to the rods O or the cross-bar Q', connecting said rods. The lower end of this lever M is held with its curved portion in the recess by the locking-plate R, which has a slot R', which guides it in its vertical movement upon the clamping-bolt S, which has a handle T, by means of which it can be more readily turned.

The brackets N are provided with guide-flanges U, formed between suitable recesses in which the vertical portions of the lever M engage.

The parts being thus constructed, their operation is as follows: It is evident that the platform of the car, being entirely unobstructed by the operating mechanism, can be laid full of material, such as ties and rails. Now, to unload such material from the side without taking off the drive mechanism, the locking-plate R may be lowered so as to release the curved portion of one of the levers, so that that lever may be turned upon its pivot and laid upon the top of the handles, as plainly shown in Fig. 2, and thus leave unobstructed that side of the car from which to unload. It is evident that either side may be thus freed from obstruction. The brace-rod P will hold up in the meantime the handles O and the lever which is turned upon the same. If it is desired, the car may be further freed from the operating mechanism by turning the handles off from the car upon the pivot at the other side of the car, as shown in dotted lines in Fig. 2, or, if desired, the handles may be entirely detached and the car used as a push-car. To replace the operating

mechanism the lever M is lowered by turning it upon its pivot and the locking-plate R is raised to cover the curved portion, as shown in Fig. 5, and the car is again ready to be operated. It frequently happens that in carrying out rails or ties or similar material the articles are designed to be placed at different points along the line but a short distance apart, and with my device it will be seen that the car may be propelled when fully loaded, and by simply disengaging the lower end of one of the operating-levers the material may be thrown off and the lever re-engaged even while the car is in motion and without locking the lever in position by the locking-plate R, as the point of suspension of such lever is slightly inside the brackets, thus inclining it toward the said brackets.

While I show the yoke-shaped lever and the bracket made to receive the same, it is evident that any other form of lever may be used and other means may be devised for locking the lever in its adjusted position. It is also evident that the cross-bars O may be detached from the actuating-levers, or that either one of the actuating-levers may be detached. If, for instance, it were found necessary in handling bulky boxes, &c., on the track to take off the cross-bar, the operator might stand on the inside of the car to work one of the levers M, and it might be necessary in loading the car from above to remove the cross-bar and one of the uprights.

What I claim as my invention is—

1. In a hand-car, a propelling mechanism

having a drive-shaft journaled transversely the car and extending to the sides thereof, two upwardly-extending levers detachably secured to the ends of the drive-shaft, and a cross-bar to which the upper ends of said levers are hinged, substantially as described.

2. In a hand-car, the combination, with the frame and drive-shaft, of the yoke-shaped lever M, the bracket N, to which said lever is hinged, and the plate R, secured to the drive-shaft and provided with means for detachably clamping the lower end of said lever upon its outer face free to be swung outwardly, substantially as described.

3. In a hand-car, the combination, with the frame and drive-shaft, of the actuating-levers M, the brackets N, the cross-bars O, and the brace P, substantially as described.

4. In a hand-car, a platform, an oscillating propelling-shaft extending to the sides thereof, and two propelling-levers detachably secured at their lower ends to the ends of the oscillating shaft and hinged at their upper ends to brackets in which the ends of a connecting cross-bar are secured, said brackets having dependent flanges which engage with the upper ends of the levers, substantially as described.

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

CYRUS ROBERTS.

Witnesses:

M. B. O'DOHERTY,
P. M. HULBERT.