

W. L. DAUGHTRY.
HAND CAR.
APPLICATION FILED MAR. 22, 1915.

Patented June 29, 1915.
2 SHEETS—SHEET 1.

1,144,819.

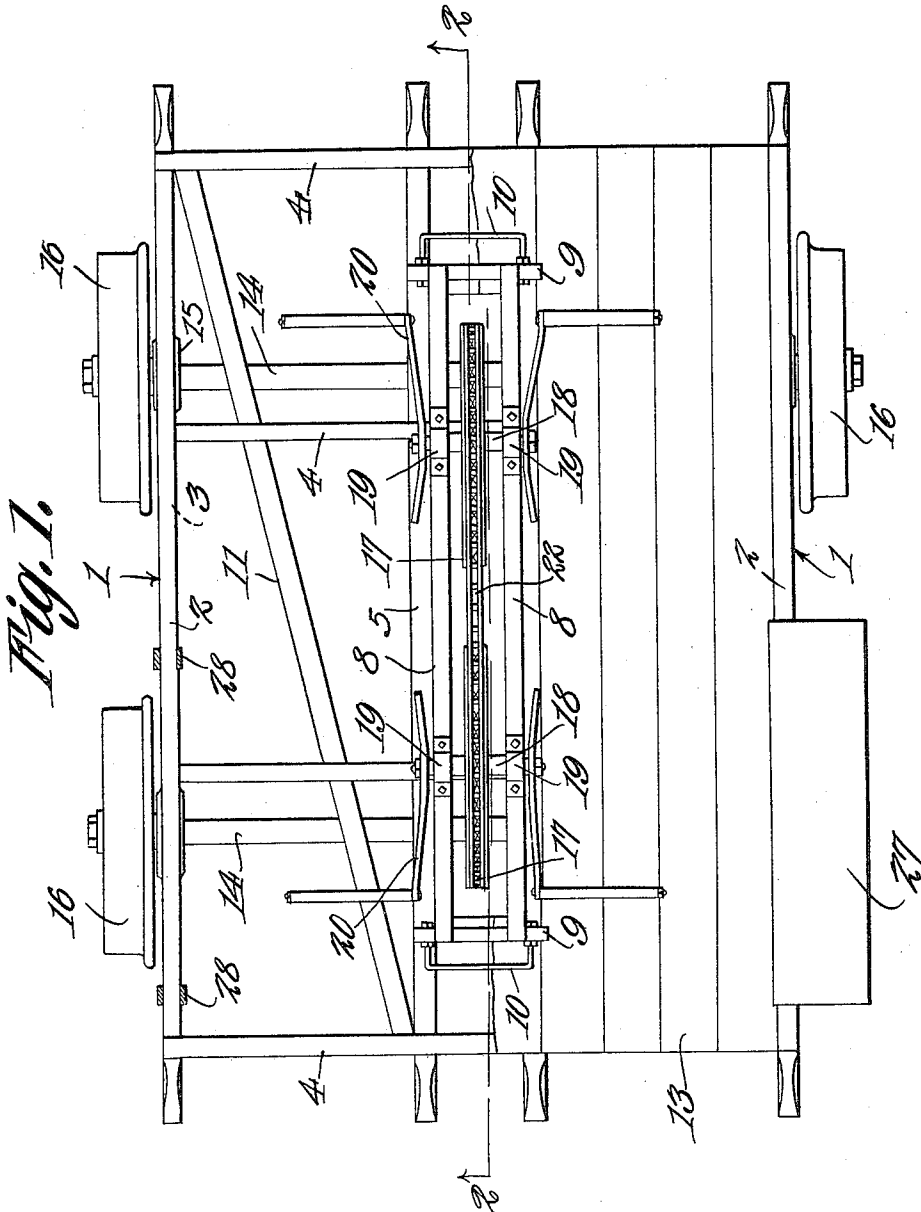


Fig. 1.

W. L. Daughtry
Inventor,

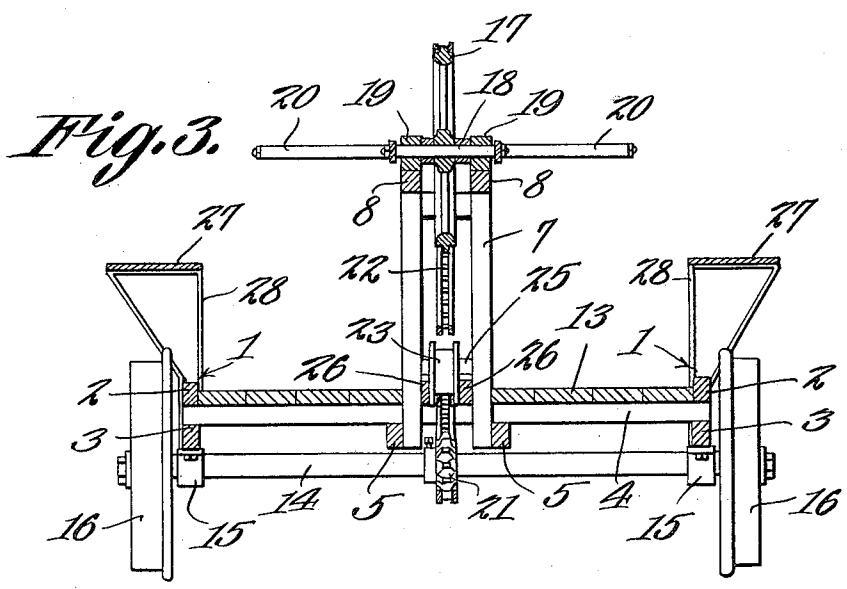
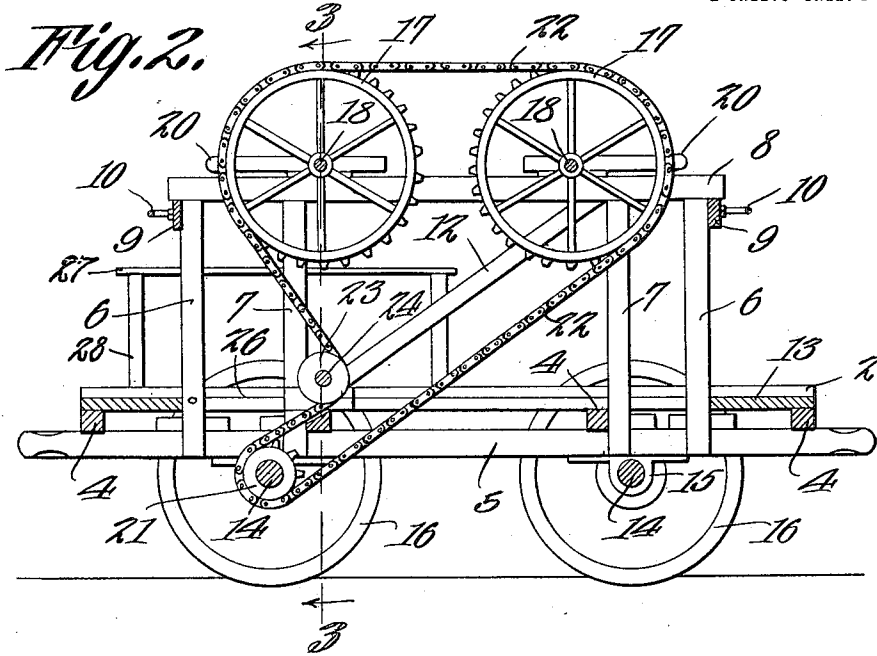
Witnesses
J. P. Gomer
Howard F. Miller

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UNITED STATES PATENT OFFICE.

WILLIE L. DAUGHTRY, OF ORLANDO, FLORIDA.

HAND-CAR.

1,144,819.

Specification of Letters Patent. Patented June 29, 1915.

Application filed March 22, 1915. Serial No. 16,171.

To all whom it may concern:

Be it known that I, WILLIE L. DAUGHTRY, a citizen of the United States, residing at Orlando, in the county of Orange and State of Florida, have invented a new and useful Hand-Car, of which the following is a specification.

The present invention appertains to hand cars, and aims to provide a hand car of novel and improved construction, and adapted especially for use on railroad tracks, although it may be adapted for road use as well.

The object of the invention is the provision of a hand car having a unique actuating gear or mechanism, assembled with the frame in a novel manner and connected to the running gear, whereby the car may be operated manually or by the hands of one or more operators.

It is also within the scope of the invention to provide a hand car having the features above noted, and which is comparatively simple and inexpensive in construction, as well as being practical and efficient in operation.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein—

Figure 1 is a plan view of the hand car, portions being removed. Fig. 2 is a reduced longitudinal section of the car taken on the line 2—2 of Fig. 1. Fig. 3 is a cross section taken on the line 3—3 of Fig. 2.

The body or main frame of the car embodies longitudinal side beams 1, each consisting of upper and lower sections 2 and 3, and cross bars 4 terminally secured or clamped between the sections 2 and 3 of the beams 1. Intermediate or central beams 5 are secured to the bottom of the cross bars 4 between and parallel with the side beams, and the ends of all of the beams project beyond the cross bars 4 to provide handles for lifting the car.

The body or main frame carries an upstanding longitudinal supporting structure

or supplemental frame, said supporting structure including two pairs of upstanding end standards 6, and two pairs of intermediate standards 7. The standards 6 are arranged adjacent the ends of the car body, and longitudinal side beams 8 are attached to the upper ends of the standards 6 and 7 at the opposite sides of the supporting structure. Cross pieces 9 are attached to the end standards 6 adjacent their upper ends and the ends of the beams 8, and are preferably provided with outstanding handles 10, which may be grasped by the operators.

The body or main frame is strengthened by means of diagonal or oblique braces 11 between the end cross bars, and the supporting structure is strengthened by means of diagonal or inclined braces 12 between the upper and lower ends of the respective standards 7. Longitudinal deck bars 13 are secured upon the cross bars 4, between the beams 1 and 5, and there is a longitudinal slot or opening between the standards 6 and 7 at the opposite sides of the supporting structure. The boards 13 provide the deck upon which the operators may stand.

A pair of axles 14 are journaled through suitable bearings 15 secured to the lower sections 3 of the side beams 1, and flanged wheels 16 are secured upon the ends of the axles 14. As illustrated, the wheels 16 are flanged to run upon the rails of a railroad track, although the wheels 16 may be of such construction that the car may travel on thoroughfares.

The actuating gear of the car embodies a pair of relatively large longitudinally spaced sprocket wheels 17 which are mounted for rotation between the upper longitudinal side beams 8 of the supporting structure, the sprocket wheels 17 being keyed or secured upon transverse shafts 18 which are journaled through bearings 19 carried by the beams 8. Hand cranks 20 are secured to the ends of the shafts 18, and the cranks of each shaft preferably project in the same direction, while the cranks of the two shafts project in opposite directions. A relatively small sprocket wheel 21 is secured or keyed upon one axle 14, the sprocket wheels 17 being disposed above the axles, and an endless sprocket chain 22 is trained around the sprocket wheels 17 and 21. Particular attention is directed to the provision of an idler pulley 23 between the sprocket wheel 21 and that sprocket wheel 17 which is above

the sprocket wheel 21, the pulley wheel 23 being keyed upon a shaft 24 journaled in bearings 25 secured upon longitudinal pieces 26 attached to the standards 6 and 7 at one end of the supporting structure. That run of the sprocket chain 22 between the sprocket wheel 21 and the sprocket wheel 17 thereabove, passes around the pulley wheel 23, and is thus extended in the shape of a letter V. The run of the chain 22 between the sprocket wheel 21 and the remote sprocket wheel 17 extends along a diagonal or inclined line, as clearly seen in Fig. 2, and by the provision of the pulley wheel 23 arranged as illustrated and described, that portion of the chain 22 between the sprocket wheel 21 and pulley wheel 23 will be approximately parallel with the said inclined or diagonal run of the chain. The chain 22 passes through the slot between the beams 5, and the pulley wheel 23 relieves, to a large extent, the tendency for the chain to break between the sprocket wheel 21 and that sprocket wheel 17 above the sprocket wheel 21. A pair of seats 27 are supported above one pair of wheels by means of doubled bars 28, which are terminally secured to the upper sections 2 of the beams 1, and upon the intermediate portions of which the seats 27 are secured. The seats 27 overhang the respective wheels, and are capable of holding a number of persons.

In operation, when one or both of the sprocket wheels 17 are rotated, the chain is drawn around the sprocket wheel 21, and will rotate the respective axle properly for propelling the car forwardly. The car may be propelled by one person or by several persons, since each of the cranks 20 will accommodate one person, or even two persons in case of necessity. The relatively large sprocket wheels 17 being rotated, will rotate

the axle at a relatively higher speed, and furthermore, each of the sprocket wheels 17 is connected to the respective axle in an effective manner, whereby the car may be propelled by the forcible rotation of either one or both of the sprocket wheels 17. Importance is therefore attached to the construction of the actuating gear including the sprocket wheels 17, pulley 23, sprocket wheel 21 and sprocket chain 22.

What is claimed is:

A hand car, comprising a body having an upstanding longitudinal supporting structure, axles journaled to the body and having wheels thereon, an actuating gear embodying a pair of transverse shafts journaled to the supporting structure and having terminal hand cranks, relatively large sprocket wheels secured upon the said shafts and arranged above the axles, a relatively small sprocket wheel carried by one axle, a sprocket chain trained around all of the sprocket wheels, said sprocket chain having an inclined run between the relatively small sprocket wheel and the remote relatively large sprocket wheel, and a pulley carried by the supporting structure between the relatively small sprocket wheel and the other relatively large sprocket wheel and having the chain passed therearound whereby that portion of the chain between the pulley wheel and relatively small sprocket wheel will be approximately parallel with the said inclined run.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIE L. DAUGHTRY.

Witnesses:

J. K. CHAPMAN,
M. A. SLOAN.