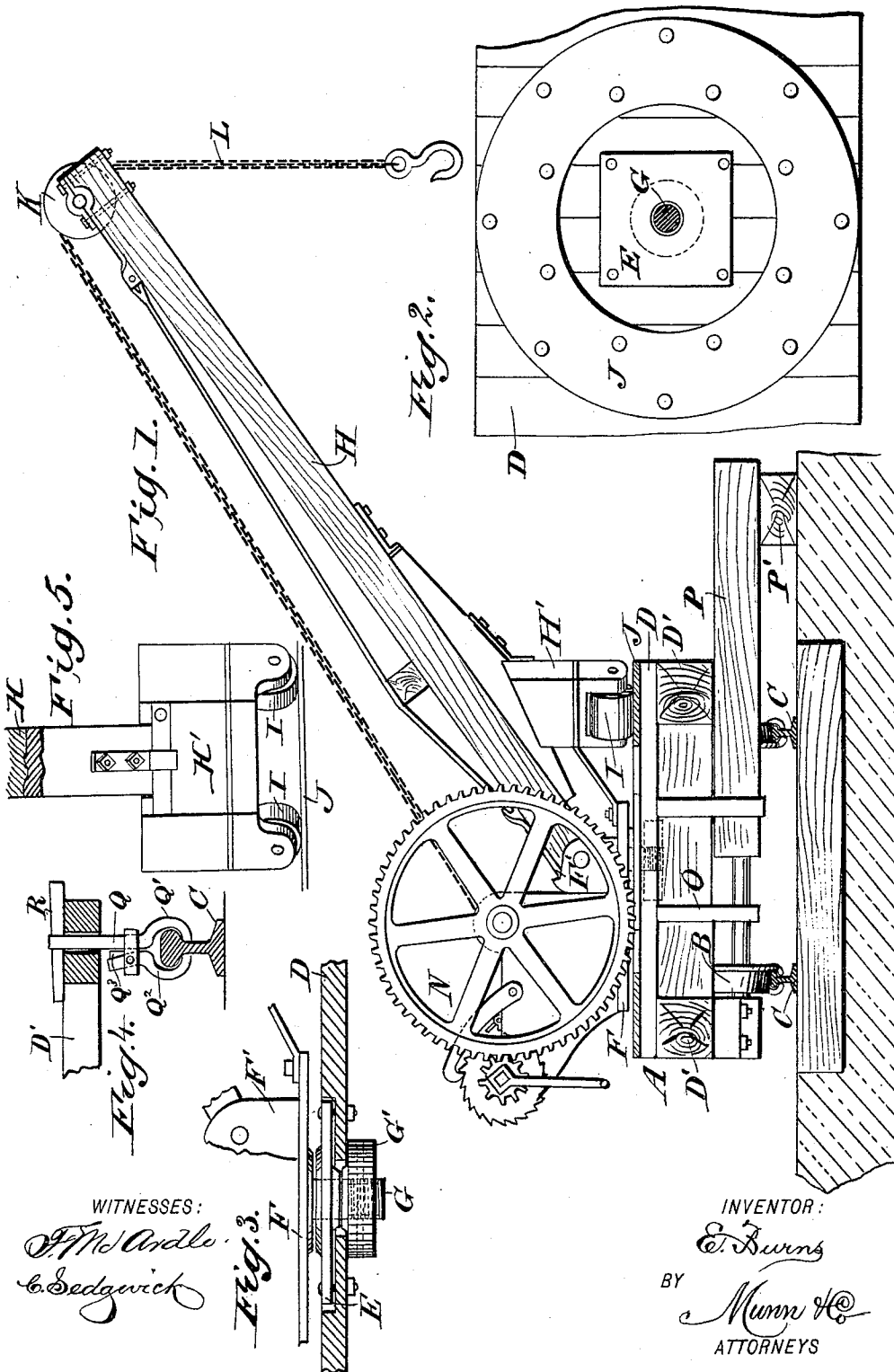


(No Model.)

E. BURNS.
PORTABLE HOISTING MACHINE.

No. 460,425.

Patented Sept. 29, 1891.



WITNESSES:

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Fig. 3.

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EDWARD BURNS, OF MONTELLO, WISCONSIN.

PORTABLE HOISTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 460,425, dated September 29, 1891.

Application filed March 18, 1891. Serial No. 385,441. (No model.)

To all whom it may concern:

Be it known that I, EDWARD BURNS, of Montello, in the county of Marquette and State of Wisconsin, have invented a new and Improved Portable Hoisting-Machine, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved portable hoisting-machine which is simple and durable in construction, very effective in operation, and designed to travel on rails, serving to lift heavy articles to and from cars, ships, warehouses, yards, &c.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is a plan view of the car-platform. Fig. 3 is a sectional side elevation of the same, showing part of the hoisting-machine. Fig. 4 is a sectional side elevation of a device for holding the car in place on the rails, and Fig. 5 is an elevation of the lower portion of the boom.

The improved hoisting-machine is provided with a suitably-constructed platform-car A, the wheels B of which are mounted to travel on the rails C. On the top of the platform D of the car, at or near its middle, is arranged a plate E on which is mounted to turn the base F of the hoist, the said base being provided for this purpose with a downwardly-extending pivot G, passing through the plate E and provided at its lower end with a nut G', abutting against the under side of the platform D, as is plainly illustrated in Fig. 3.

On the base F are arranged lugs F', in which is pivoted the lower end of the boom H, extending upward and outward and provided with a downwardly-extending bracket H', in the lower end of which are journaled one or more rollers I, adapted to travel on a circular track J, secured on top of the platform D.

On the extreme outer end of the boom H

is mounted to turn the usual pulley K, over which passes the hoisting-chain L, adapted to be wound upon or unwound from the hoisting-drum N, of any approved construction, and held on the base F of the hoist proper.

On the under side of the platform D and near each end are secured downwardly-extending guideways O, adapted to support a beam P, passing under the timbers D' of the car A, and when extended, as illustrated in Fig. 1, to one side of the machine are adapted to rest at their outer ends on blocks P'. The beams P are extended to that side of the car on which the boom H projects, so that the car A is prevented from upsetting or leaving the rails when a heavy article is hung on the hook of the chain L.

In order to prevent displacement of the wheels B on the rails C, the device shown in Fig. 4 is employed, consisting of an arm Q, fastened by a key R or other means to the timbers D' of the car. The lower end of the arm Q is formed with a hook Q', adapted to pass over one side of the head of the rail C, the other side of the rail being engaged by a corresponding hook Q², pivoted to the arm Q and adapted to be locked in place by a wedge Q³, as is plainly illustrated in Fig. 4. The two hooks Q' and Q² extend close to the web of the rail, thus engaging the under side of the head of the rail, and thereby preventing upsetting of the car.

It will be seen that the boom H, with the hoisting-drum N, can be readily turned in any direction, so as to extend over the car at any desired place, the said boom H being supported by the arms H', and the roller I traveling on the track J. When swinging the boom H around, the hoisting-drum moves with the said boom, as both are secured on the base F, mounted to turn in the plate E of the platform of the car A.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a portable hoisting-machine, the combination, with a platform-car mounted to travel, of a base mounted to turn on the said platform-car, a hoisting-drum held on the said base, a boom pivoted on the said base and provided with a downwardly-extending

bracket, and one or more rollers journaled in the said bracket and mounted to travel on the top of the platform of the car, substantially as shown and described.

5 2. In a portable hoisting-machine, the combination, with a platform-car mounted to travel, of a base mounted to turn on the said platform-car, a hoisting-drum held on the said base, a boom pivoted on the said base
10 and provided with a downwardly-extending bracket, rollers journaled in the said bracket, and a circular track secured on the top of the said car and on which said rollers are mounted to travel, substantially as shown and de-
15 scribed.

3. In a portable hoisting-machine, the combination, with a platform-car provided with a plate, of a base mounted to turn on the said plate, a boom pivoted on lugs on the said
20 plate, a bracket projecting from the said

boom, rollers journaled in the said bracket, and a circular track arranged on the platform of the said car and on which the said rollers are adapted to travel, substantially as shown and described.

25 4. In a portable hoisting-machine, the combination, with a platform-car provided with a plate, of a base mounted to turn on the said plate, a boom pivoted on lugs on the said plate, a bracket projecting from the said
30 boom, rollers journaled in the said bracket, a circular track arranged on the platform of the said car and on which the said rollers are adapted to travel, and a hoisting-drum mounted on the said base, substantially as
35 shown and described.

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Witnesses:

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