No. 610,933. Patented Sept. 20, 1898.

J. N. WAGONER.

HOISTING MACHINE.

(Application filed June 24, 1897. Renewed Apr. 20, 1898.)

(No Model.)

Fig. 1.

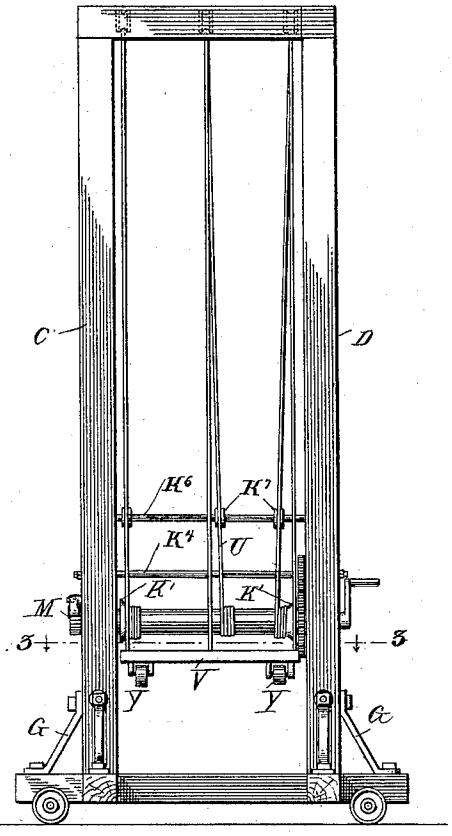


Fig. 2.

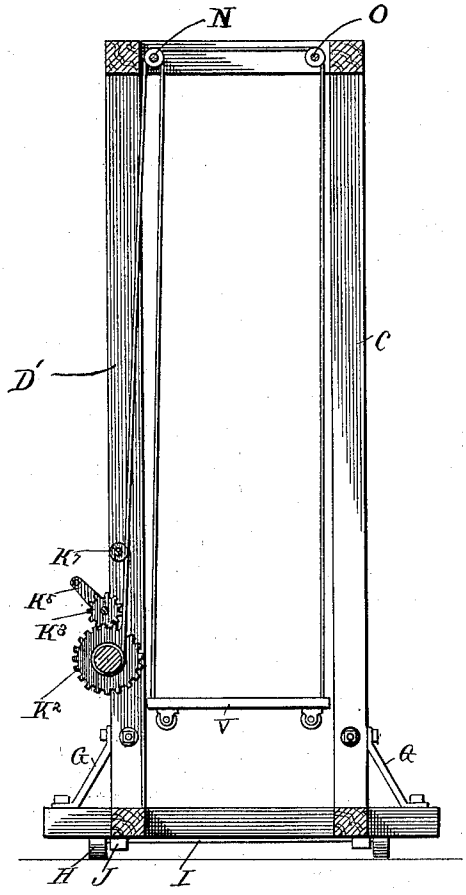


Fig. 3.

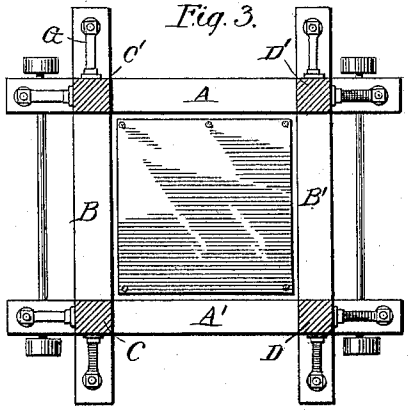
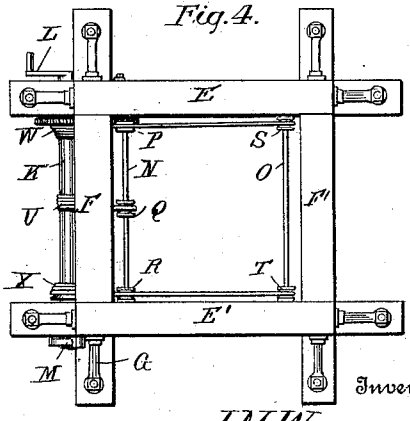


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN N. WAGONER, OF SPARTA, WISCONSIN.

HOISTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 610,933, dated September 20, 1898.

Application filed June 24, 1897. Renewed April 20, 1898. Serial No. 678,313. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. WAGONER, residing at Sparta, in the county of Monroe and State of Wisconsin, have invented a new and useful Hoisting-Machine, of which the following is a specification.

My invention relates to hoisting machinery, and has for its object to furnish a simple, strong, and reliable hoisting-machine which may be easily moved from place to place when desired and which will always be ready for operation.

With this object in view my invention consists in the improved construction, arrangement, and combination of details hereinafter fully described and afterward specifically pointed out in the claim.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, in which—

Figure 1 is a view in elevation of my improved hoisting apparatus complete ready for operation. Fig. 2 is a view of the same in vertical section on a plane cutting the hoisting-drum at right angles, the truck being shown in side elevation. Fig. 3 is a horizontal transverse sectional view through the apparatus on the line 3 3 of Fig. 1 looking downward, as indicated by the arrows. Fig. 4 is a top plan view of the structure, the wheels being omitted.

Like letters of reference mark the same parts wherever they occur in the various figures of the drawings.

Referring to the drawings by letters, A A′ B B′ are the sills, upon which the vertical standards or uprights C C′ D D′ are mounted, the sills being halved together and the uprights secured thereto in any suitable rigid manner.

E E′ and F F′ are plates secured on the top of the uprights in any usual well-known manner. The uprights are connected to the plates A A′ and B B′ by braces G, which stiffen the whole structure, being secured by bolts and nuts in the usual manner. The base is mounted upon wheels H, secured at the ends of shafts I, journaled in bearings J, depending from the under sides of the outer ends of the sills A A′.

K is a drum mounted in bearings on the uprights C′ and D′ and having a suitable crank-handle L at one or both ends and the pawl-and-ratchet mechanism M at one of its ends. The drum K is provided with flanges K′ to prevent the rope from sliding off the ends and has a gear-wheel K^2, which meshes with a pinion K^3 on a shaft K^4 above the drum, having a crank-handle K^5. Above the shaft K^4 is a shaft K^6, carrying grooved pulleys K^7 to properly guide the ropes.

N and O are transverse shafts journaled in plates E and E′ at the top of the framework. The shaft N carries at one end a grooved pulley P, in its center a similar pulley Q, and at its opposite end a third pulley R, while the shaft O carries at its ends pulleys S and T. The rope, belt, or chain U is secured to the drum K and passing over the pulley Q is brought down and secured to one side of the truck V.

Ropes W and X are secured to the drum K near its ends, the rope W passing up over the pulley P, thence across over the pulley S, and thence downward and secured at its lower end to one end of the opposite side of the truck V, and the rope X passing up over the pulley R, thence across over the pulley T, and thence downward and secured to the other end of the same side of the truck V. The truck V is provided on its under side with rollers Y, whereby it may be moved from place to place when necessary.

In the operation of my device any merchandise or other material to be hoisted is placed upon the truck V, when by rotating the drum K, by means of the crank L, and winding the ropes W, U, and X upon said drum the truck will be raised to any required height and will at all times preserve its horizontal position.

A special use of my invention is to place the apparatus over the top of a well, embedding the base in the earth surrounding the well, when the truck may be lowered into the well to deliver bricks or stones for walling the well, or the usual well-bucket may be placed upon the truck and hoisted out of and lowered into the well. The well-bucket might be provided with rollers on its bottom and at-

tached to the ropes in place of the truck, if desired. When the truck has been raised out of the well or from a lower to a higher position for any purpose, it may be drawn out from beneath the standards, always maintaining its horizontal position, and by slacking up the ropes on the drum it may be rolled to any position within a reasonable distance of the apparatus.

The uses to which my apparatus might be put are innumerable, and the apparatus is a valuable addition to the outfit of any farm, dock-yard, lumber-yard, or manufacturing establishment.

While I have illustrated and described what I believe to be the best means for carrying out my invention, I do not wish to be understood as limiting myself to the exact construction and arrangement herein shown, but hold that such slight changes and variations as might suggest themselves to the ordinary mechanic would properly fall within the limit and scope of my invention.

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

In a hoisting apparatus the combination of four rectangularly-arranged uprights, a rectangular frame at the top thereof, consisting of four plates, a winding-drum mounted in bearings on the outside of two of the uprights, a shaft mounted parallel with the winding-drum between the sides of the top frame on the same side as the winding-drum, a second shaft mounted on the opposite side of the top frame, both of these shafts carrying a grooved pulley at each end and the first-named shaft carrying a grooved pulley at its center, a rope secured to the winding-drum at its center, two other ropes secured to the winding-drum at its ends, and a truck arranged inside the framework, the rope which is secured to the center of the winding-drum passing over the center pulley of the upper shaft and straight downward to the center of one side of the truck, and the ropes secured at the ends of the winding-shafts passing up and over the end pulleys of the upper shafts respectively, and down to the opposite side of the truck at its corners, substantially as described.

JOHN N. WAGONER.

Witnesses:
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