

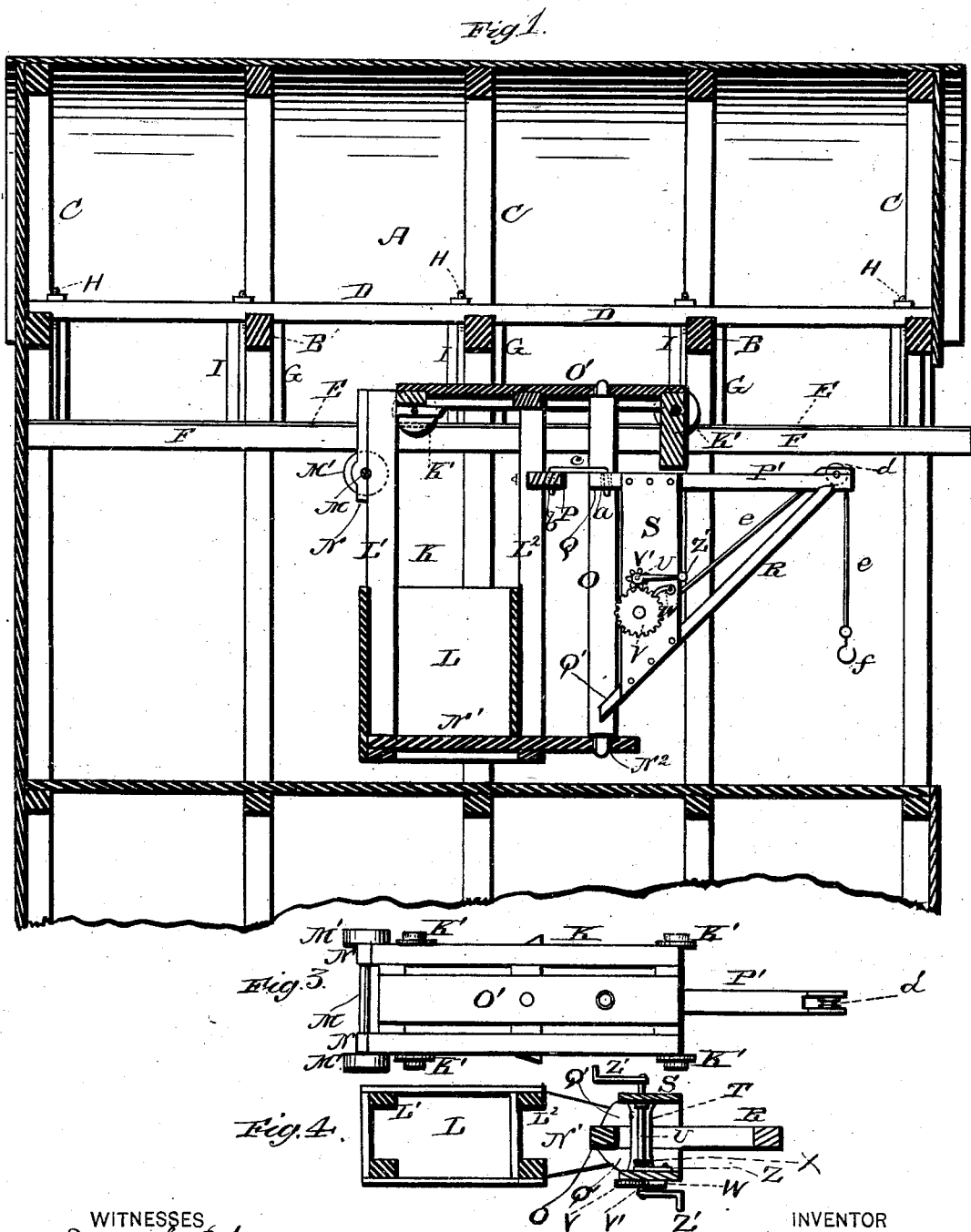
(No Model.)

2 Sheets—Sheet 1.

W. B. MOORE.
HOISTING APPARATUS.

No. 264,469.

Patented Sept. 19, 1882.



WITNESSES
Emory & Bates.
Ellis Johnston

INVENTOR
William B. Moon
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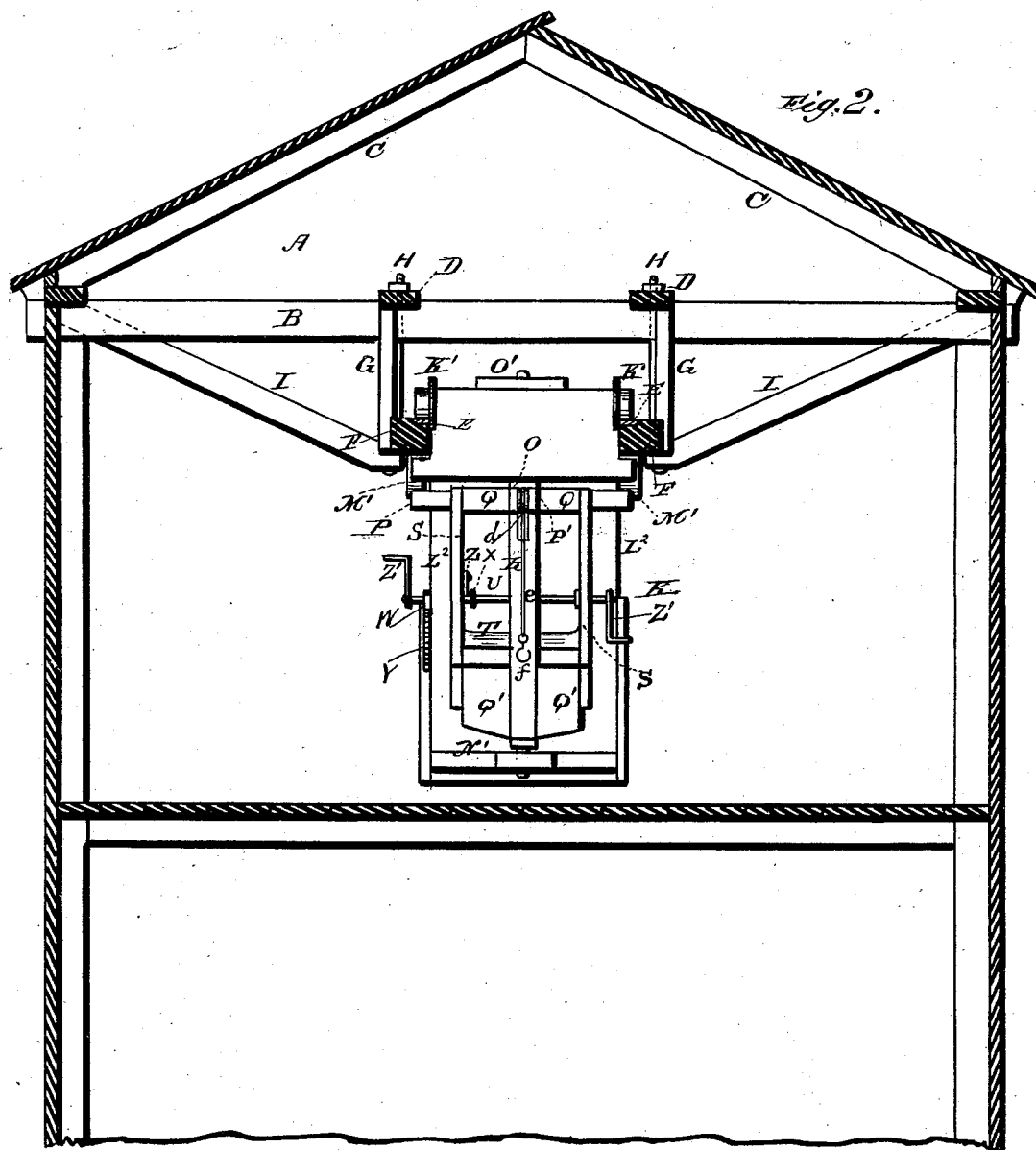
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UNITED STATES PATENT OFFICE.

WILLIAM B. MOORE, OF MILLSBOROUGH, PENNSYLVANIA.

HOISTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 264,469, dated September 19, 1882.

Application filed July 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. MOORE, a citizen of the United States, residing at Millsborough, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Hoisting Apparatus, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a vertical longitudinal sectional view of my apparatus. Fig. 2 is a sectional view of the building and track and an end elevation of the car; and Figs. 3 and 4 are detail views.

This invention has relation to hoisting apparatus to be located in barns, stores, and the like; and it consists in the novel construction and arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claims.

Referring by letter to the accompanying drawings, A designates the frame-work of the upper portion of a building in which my apparatus is to be placed, B being the joists and C the rafters of the same, the latter being employed to stay the joists. The joists B are connected by tie-beams D, bolted or spiked to them, as shown.

A car-track, E, has its sleepers F F suspended from the joists B and the tie-beams D by truss-posts G and bolt-rods H, as shown, and these sleepers are strengthened by lateral inclined braces I, extending therefrom to near the ends of the joists, to which their outer ends are bolted. Upon the sleepers F F, and in line with their inner edges, the track-rails E are laid and spiked in the usual manner. The track E should extend about two feet beyond the end of the building in which it is placed, in order that the car, hereinafter described, may be run out sufficiently far to enable the crane thereto attached to be conveniently operated.

The car K consists of a truck mounted on four flanged wheels, K', and from this truck depends a weight-box, L, the posts L' L' of which are securely attached to the truck-frame of the car K by mortises and tenons, bolts being passed laterally through the tenons.

A shaft, M, carrying friction-wheels M', which bear against the under faces of the

sleepers F, is journaled in boxes N, attached to the rear faces of the rear posts, L', of the weight-box.

The floor N' of the weight-box L extends forward for some distance from the box, as shown, and has an opening, N², which forms a bearing for the lower end of the pivotal post O of the crane, the upper end of said post O having its bearing in a plank, O', secured to the truck of the car.

The front posts, L², of the weight-box L are provided with a stop, P, bolted thereto, as shown, against which the sides of the crane strike when the latter is turned to a right angle, at either side, to the front of the weight-box.

The horizontal arm P' of the crane is provided on each side at its junction with the pivotal post O, with blocks Q Q, the ends of which are flush with the rear face of the pivotal post O.

The brace R of the crane is also provided with side blocks, Q' Q', near its junction with the pivotal post O, and to the sides of these blocks Q and Q' the side pieces, S, of the crane-frame are securely attached. In these side pieces, S, the spool T and shaft U of the windlass have their bearings. The shaft of the spool T projects through one of the side pieces, S, and is provided with a gear-wheel, V, which meshes with a spur-gear, V', on the shaft U.

A pawl, W, is pivoted to the outside of the side piece, S, in a position to engage the gear-wheel V, which operates also as a ratchet-wheel.

The shaft U is also provided near one end—viz., that on which the spur-gear V' is secured—with a collar, X, on the inside of the side piece, S, which latter is provided with a pivoted arm, Z, which, when resting on the shaft U between the collar X and the side piece, S, will hold the shaft and spool in gear, but which, when lifted, will permit the shaft to be moved out of gear with the spool.

The shaft U is provided with a crank, Z', at each end, so that two men may operate the windlass; or it may be operated by one man from either side of the windlass.

One of the blocks, Q, is provided with a vertical perforation, a, and the stop P has a vertical perforation, b, for the reception of the hook ends of a short rod, c, which, when in

place, will hold the horizontal arm of the crane in line with the car-truck, but when removed will permit the crane to swing to either the right or the left to deliver the load which has been raised.

d is a sheave in the end of the horizontal arm *P'*, and *e* is the cord provided with a hook, *f*, passing over the sheave and secured to the windlass-spool, as shown.

10 The weight-box is to be loaded to counter-balance the weight being raised or lowered, and thereby lessen the friction of the friction-wheels on the under faces of the sleepers.

A platform should be provided on each side 15 of the track for the workman to walk on in working the apparatus.

The device can be built in a building already constructed at a small cost and with very little difficulty; or it may be built in a building in 20 course of construction. By its employment one man can easily raise or lower five or six hundred pounds at a time and deliver it at the point desired. In fact, its advantages are obvious.

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

1. In a hoisting apparatus, the combination,

with a car-truck and a depending weight-box having friction-wheels adapted to bear against 30 the under faces of the sleepers of a suspended car-track, of the pivoted crane, substantially as and for the purposes set forth.

2. In a hoisting apparatus, the combination, with the depending weight-box provided with 35 the perforated stop *P b*, of the pivoted crane having the perforated block *Q*, and the rod *e*, having hook ends, substantially as and for the purposes specified.

3. In a hoisting apparatus, the combination, 40 with the spool *T*, carrying the gear-wheel *V*, the shaft *U*, having spur-gear *V'*, and collar *X*, having their bearings in the side *S*, and the pawl *W* and pivoted arm *Z*, substantially as specified.

4. In a hoisting apparatus, the combination 45 of the suspended track, the car, the weight-box, friction-wheels, and the pivoted crane, substantially as specified.

In testimony whereof I affix my signature in 50 presence of two witnesses.

WILLIAM BALLENGER MOORE.

Witnesses:

J. R. BAIR,

J. C. SMITH.