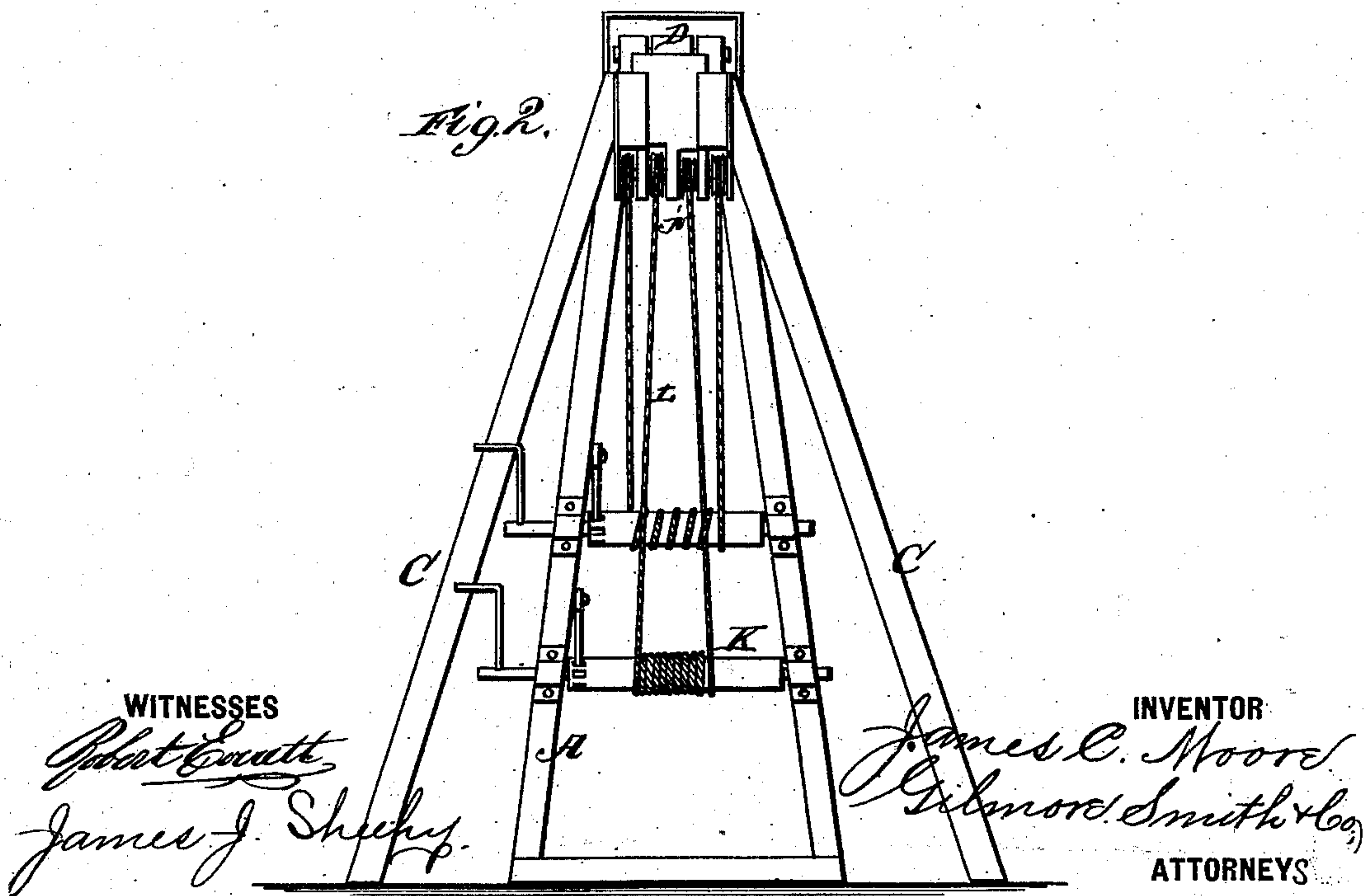
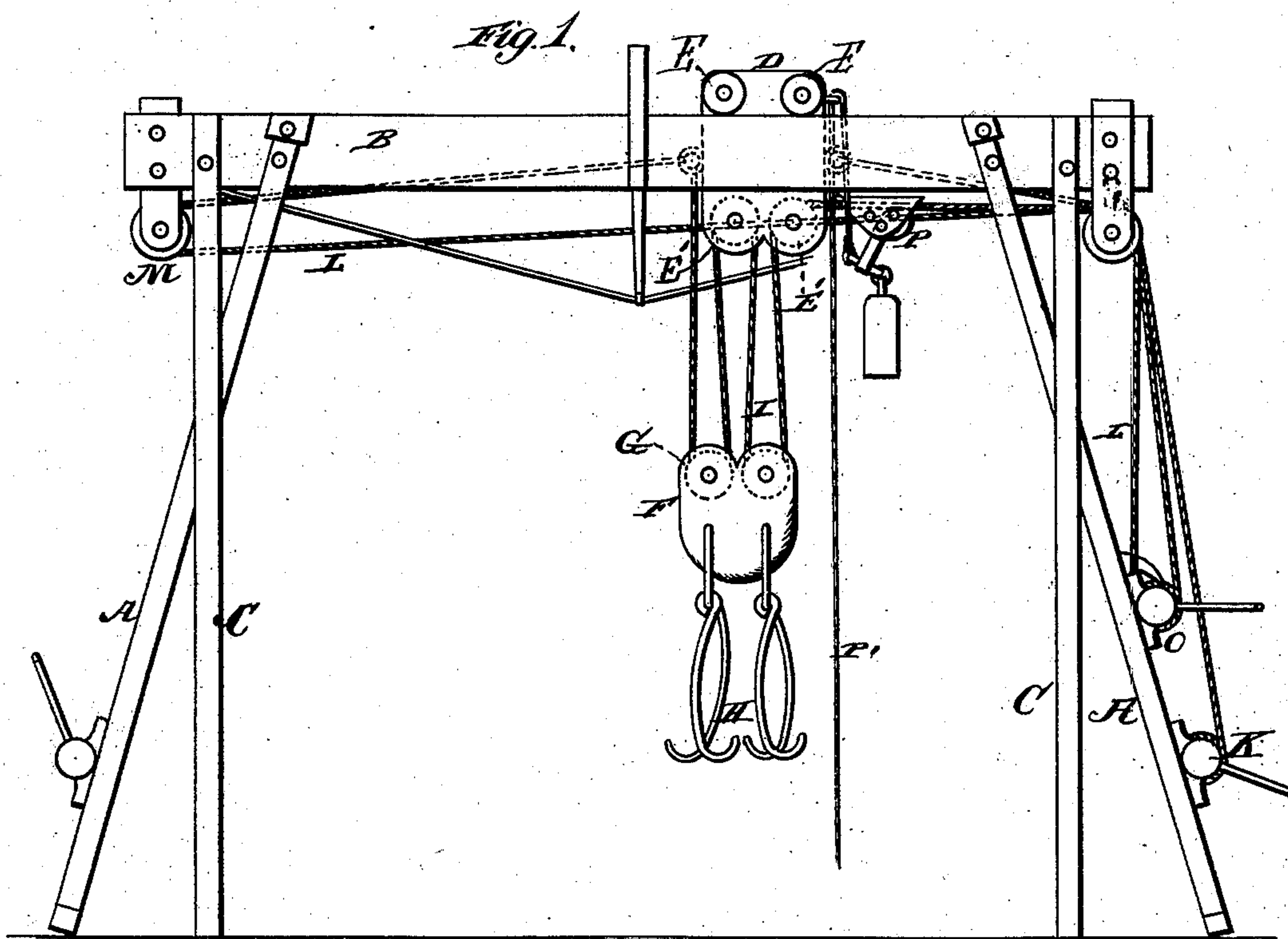


J. C. MOORE.
Apparatus for Lifting, Carrying and Lowering
Heavy Bodies.

No. 225,408.

Patented Mar. 9, 1880.



UNITED STATES PATENT OFFICE.

JAMES C. MOORE, OF BROOKSTON, INDIANA.

APPARATUS FOR LIFTING, CARRYING, AND LOWERING HEAVY BODIES.

SPECIFICATION forming part of Letters Patent No. 225,408, dated March 9, 1880.

Application filed December 20, 1879.

To all whom it may concern:

Be it known that I, JAMES C. MOORE, of Brookston, in the county of White and State of Indiana, have invented certain new and useful Improvements in Apparatus for Lifting, Carrying, and Lowering Heavy Bodies; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side elevation of my lifting apparatus, and Fig. 2 is an end view of the same.

My invention relates to apparatus for lifting, carrying, and lowering heavy bodies; and it consists in the construction and arrangement of an apparatus designed for lifting, shifting, and lowering heavy weights, as set forth and claimed.

In the drawings, A A designate two derricks, united at the top to a double-trussed girder, B. C designates props which steady the same, and which also constitute additional supports.

D is a pulley-block mounted upon wheels E, which travel upon the timbers of the girder. The block D moves between said timbers, and is provided with four pulley-wheels, E'.

F designates the suspended hoisting-block, which is likewise provided with four pulley-wheels, G. This block also carries grappling-irons H.

Ropes I I pass from a windlass, K, to and around the pulley-wheels E' G, and are finally secured at their ends to the block D. Fig. 1 illustrates the arrangement of one of these ropes.

L designates a rope secured to the block D at both ends, as shown in dotted lines. This rope passes round a pulley-wheel, M, at one end of the girder, and thence, after passing over one of two pulley-wheels, N, at the other end of the girder, and around a winch, O, it passes over the remaining pulley-wheel N to the pulley-block D.

P designates a clutch, through which pass the hoisting-ropes I, and P' shows a rope which, after passing through a guide upon block D hangs down, so as to be within reach of the workmen.

By operating the windlass K the block F may be raised or lowered with its weight clutched by the grappling-irons.

By operating the winch O the pulley-block D may be shifted backward or forward along the derrick, according to the direction in which the winch is rotated.

By pulling on the clutch-rope P' the hoisting-ropes will be acted upon so as to check the hoisting, which, in case of accident, is often necessary.

By my arrangement of braces the machine is steadied and supported, and by the inclined derricks great strength is given to the structure. These may be all taken apart, carried to another field of operation, and then readily reconstructed.

What I claim is—

1. In a hoisting apparatus, the herein-described arrangement of inclined derricks, double-trussed girder, pulley-block traveling upon and between the girder-timbers, suspended pulley-block with grapples, ropes, and windlass, substantially as shown and set forth.

2. The clutch P, in combination with the girder B, pulley-blocks D and F, and ropes I, as shown and set forth.

3. In a hoisting apparatus, the inclined derricks A, secured at the top to a double-trussed girder, B, and the supporting and steadying props C, constructed as described, in combination with a hoisting and shifting apparatus, as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES C. MOORE.

Witnesses:

THOMAS B. DAVIS,
JAS. H. BRANDON.