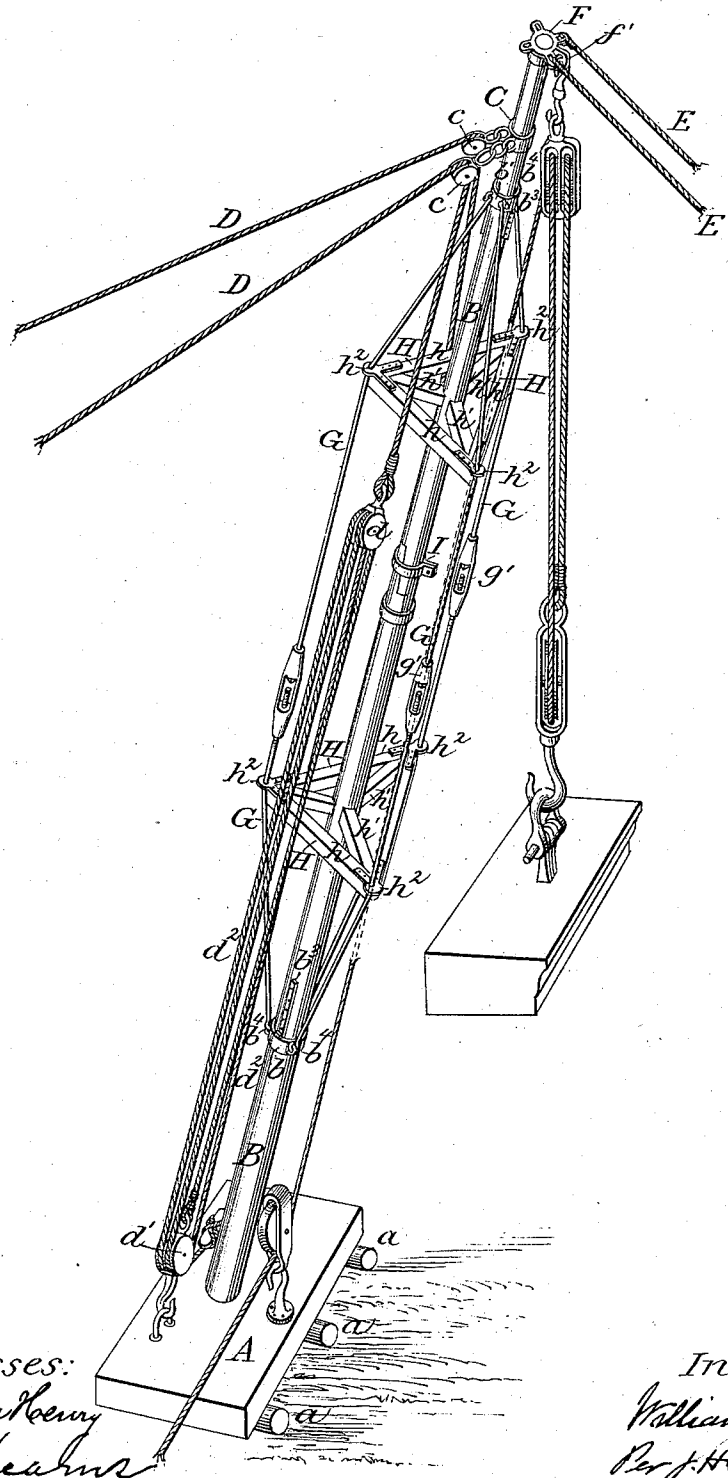
(No Model.)

W. MANSON.

HOISTING DERRICK.

No. 290,780. Patented Dec. 25, 1883.



Witnesses:
William Henry
P. J. Healy

Inventor.
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Per J. H. Lawlor
His Atty.

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UNITED STATES PATENT OFFICE.

WILLIAM MANSON, OF CHICAGO, ILLINOIS.

HOISTING-DERRICK.

SPECIFICATION forming part of Letters Patent No. 290,780, dated December 25, 1883.

Application filed February 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MANSON, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hoisting-Derricks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to letters of reference marked thereon, which forms a part of this specification.

My invention relates to improvements in hoisting-derricks in which a mast or pole is situated on a movable car or platform stayed by guys and head-lines, and operated by means of suitable ropes, blocks, and pulleys.

The objects of my invention are, first, to provide a mast that may be built of any required length, and be sufficiently strong to sustain heavy loads while they are being lifted to great heights; and, second, to afford facilities for adjusting the guys, so that the mast may be inclined in any position necessary or convenient for dragging, raising, or lowering or placing the load. I attain these objects by the mechanism illustrated in the accompanying drawing, in which the figure is a perspective view of the entire machine.

Similar letters refer to similar parts throughout the drawing.

The platform A, resting on rollers *a a*, has a central socket, *b*, into which the rounded foot of the mast B is stepped. The collar C, encircling the mast near its head, has projecting links or eyes, to which the pulleys *c c* are secured. Over these pulleys the guys D D pass, and are secured at one end to stanchions, or posts, or other convenient objects at some distance in rear of the foot of the derrick. The other ends of the guys are secured to blocks *d*, only one of which appears in the drawing. Other block, *d'*, is attached to the platform A, and to this block *d'* is secured a rope, *d''*, which passes around the pulleys in both the blocks *d* and *d'*. Head-lines E E are attached to eyes projecting from the upper collar, F, and are secured in the usual manner to objects forward of the derrick. The collar F has also a heavy central eye, *f*, projecting over the front of the mast. This eye carries a heavy double hook, to which any ordinary lifting-tackle may be attached. The collar *b* encircles the mast at some place near its foot, the collar *b'* at some place near its head, and the two are held from moving toward each other on the mast by bars b^3 b^3, bolted to the mast B, and set against the upper edge of *b* and lower edge of *b'*. These collars carry projecting eyes b^4, to which tension-rods G are secured.

H H are frames composed of three or more principal timbers, *h h h*, strongly bolted together at the joints, and having struts *n'* extending from the angles formed by those joints to the mast. These frames lie in planes at right angles with the direction of length of the mast, and have heavy metal eyes n^2 n^2, rigidly secured to each of the timbers, forming the joint. Through these eyes the tension-rods G are carried and tightened or slacked at pleasure by means of the turn-buckles *g' g'*. When the rods G G are all tightened, they form, with the frames H H, longitudinal trusses, which add very largely to the transverse strength of the mast. By means of the ropes d^2 d^2, which connect the blocks *d* and *d'*, the position of the derrick may be altered to suit the wishes of the operator. If both the ropes are paid out equally, the head of derrick is dropped forward and lower. If only one rope is paid out, the derrick will lean to the side opposite to that guy which is being slacked. When the guys are shortened, the derrick is, of course, raised nearer to a vertical direction.

My method of joining or splicing the mast is clearly shown at I.

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

A hoisting-derrick consisting of a single mast with laterally-projecting frames and tension-rods secured to collars encircling the mast near its ends, as and for the purposes set forth.

In testimony that I claim the foregoing as my own specification I affix my signature in presence of two witnesses.

WILLIAM MANSON.

Witnesses:
J. H. LAWLOR,
DONALD MANSON.