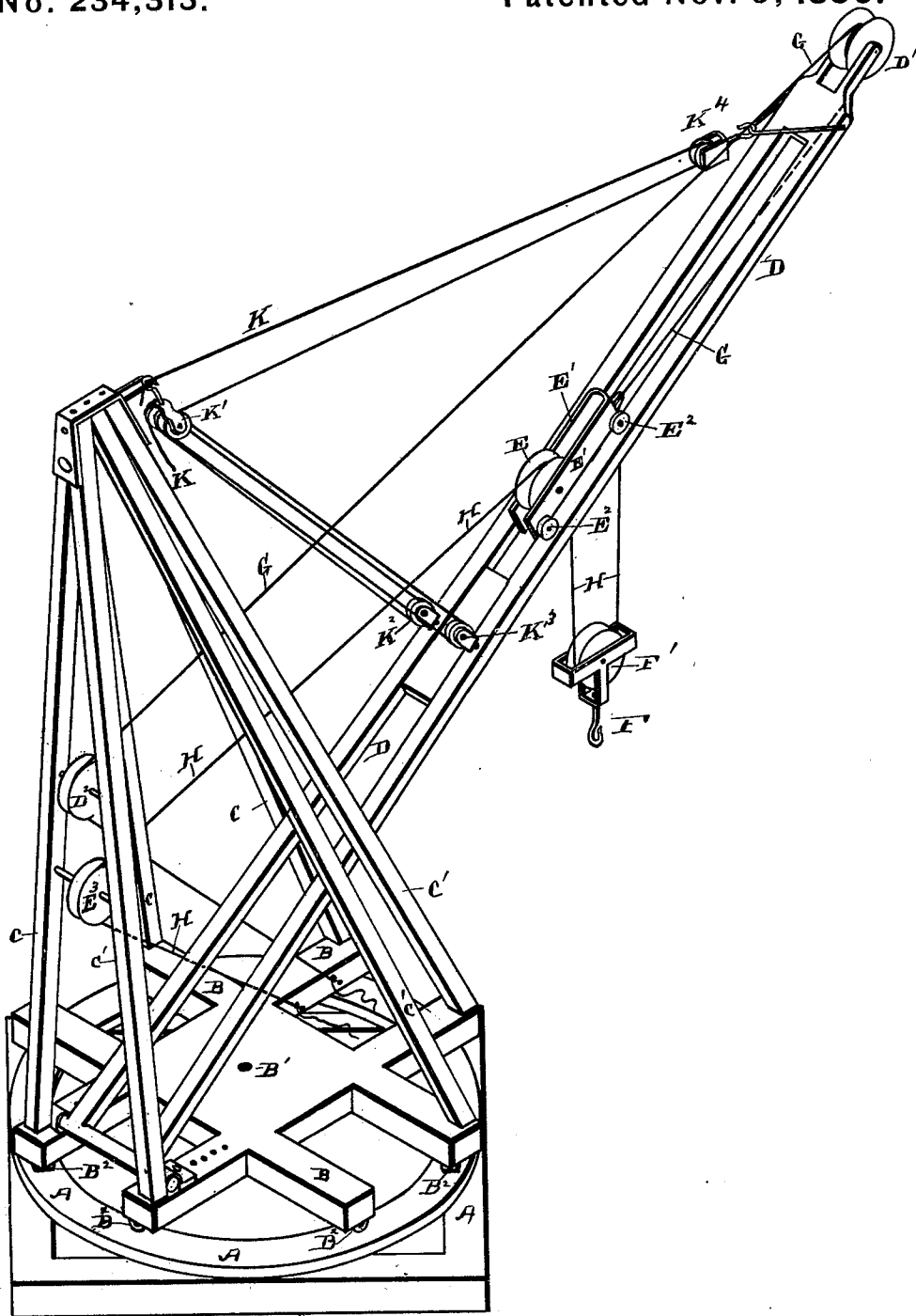


(No Model.)

J. McMYLER.  
Derrick.

No. 234,313.

Patented Nov. 9, 1880.



WITNESSES

Frank M. Faber.  
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# UNITED STATES PATENT OFFICE.

JOHN McMYLER, OF CLEVELAND, OHIO.

## DERRICK.

SPECIFICATION forming part of Letters Patent No. 234,313, dated November 9, 1880.

Application filed April 26, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN McMYLER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Derricks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to cranes and derricks; and it consists in certain details in construction and combination of parts, as will hereinafter be described, and pointed out in the claims.

The drawing represents an isometric view of a device constructed according to my invention.

In the said drawing, A is the bed or foundation upon which the turning table B rests and revolves about its pivotal point B'. B<sup>2</sup> are casters or anti-friction rollers, of any suitable kind, interposed between the bed A and table B. C C' represent the upper frame-work of the device. This frame-work is in any effective manner rigidly united and bound at the top, and at the bottom is securely fixed to the revolving table B.

D is the boom, adjustably located or pivoted at its foot to the table B in such a manner as that it is permitted to have an up-and-down movement to any sufficient degree. The boom D may be constructed either of a single solid spar or any suitable frame-work. Upon its outer end is journaled a pulley, D'.

E is a pulley journaled in a carriage, E', running upon its wheels E<sup>2</sup> along the upper surface of the boom D. As the carriage E' is drawn up or down the boom the lifting hook or clamp F and its pulley F' will be shifted farther from or nearer to the table B, and in this feature resides an important characteristic of my invention.

In order to govern the lifting hook or clamp F, I provide two sets of ropes and pulleys, one for shifting the position of the carriage E' as may be necessary and the other for lifting and lowering the hook or clamp F.

G represents the rope or cable for shifting

the carriage E'. Tracing it from the carriage E', to which it is attached at the outer end, it passes over the pulley D', from thence to the pulley D<sup>2</sup>, journaled between the frames C', and from thence down to a drum or bull-wheel. (Not shown, but which may be actuated by any suitable mechanism.)

H is the lifting-rope. It is also attached to the carriage E', and tracing it from thence, it will be seen to pass over the pulley E, then over the pulley E<sup>3</sup>, journaled in the frame-work C', and from thence to a suitable drum or bull-wheel. (Not shown.)

K is the boom-cable, through which the boom is raised or lowered. Tracing the cable K from any suitable drum or bull-wheel located upon the table B, it will be seen to pass up to the compound pulley K'; from thence down to the pulley K<sup>2</sup>, attached to the boom near its middle portion; from thence up again to the pulley K'; thence down to a pulley, K<sup>3</sup>, fixed upon the boom adjusted to the pulley K<sup>2</sup>; from thence up again to the pulley K'; thence forward to the pulley K<sup>4</sup>, fixed to the outer end of the boom; from thence to the top of the derrick or frame-work C C', where it is securely anchored. By this pulley arrangement it will be seen that the derrick is lifted from two points by the rope K.

The operation of my device is as follows: The boom D is adjusted nearer to or farther from the pivot-point B' in order to throw the center of gravity approximately to the suitable place, according to the work to be done. The cable K is taken in or paid out until the boom is at its proper incline. The carriage E' is shifted through the agency of the rope G until the lifting hook or clamp F is over the weight to be raised, or over the place where the weight is to be deposited, and the cable H is drawn in or paid out, according as the weight is to be lifted or lowered.

In lifting a weight from one place to deposit it in another the entire derrick may, if necessary, be turned upon its axis B'.

I do not limit myself in any degree to the exact construction of any of the particular elements herein described, as they may be mechanically constructed to suit the special purposes for which they may be designed. For

instance, the carriage E might be made to move in a groove or guide instead of upon its trundle-wheels E<sup>2</sup>.

The cables G, H, and K may be operated either by hand or, as already intimated, by drums or bull-wheels actuated by suitable application of power, and this power may be that exerted by a steam-engine, which may be in any manner suitably located upon the revolving table B.

What I claim is—

1. In a lifting crane or derrick, the combination, with a revolving table, of a boom adjustably secured at its lower end to said table, whereby it may be secured at any desired distance from the pivotal center of said table, substantially as set forth.

2. In a lifting crane or derrick, the combination, with a revolving table and derrick

mounted thereon, of a boom supported at its lower end by journals located in adjustable bearings, substantially as set forth.

3. In a lifting crane or derrick, the combination, with a revolving derrick, of a boom anchored at its lower end to a revolving table, a sliding pulley and lifting-hook, and means for moving said pulley and lifting-hook toward or from the end of the boom, and independent ropes and pulleys for raising and lowering the boom, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN McMYLER.

Witnesses:

JNO. CROWELL, Jr.,

W. E. DONNELLY.