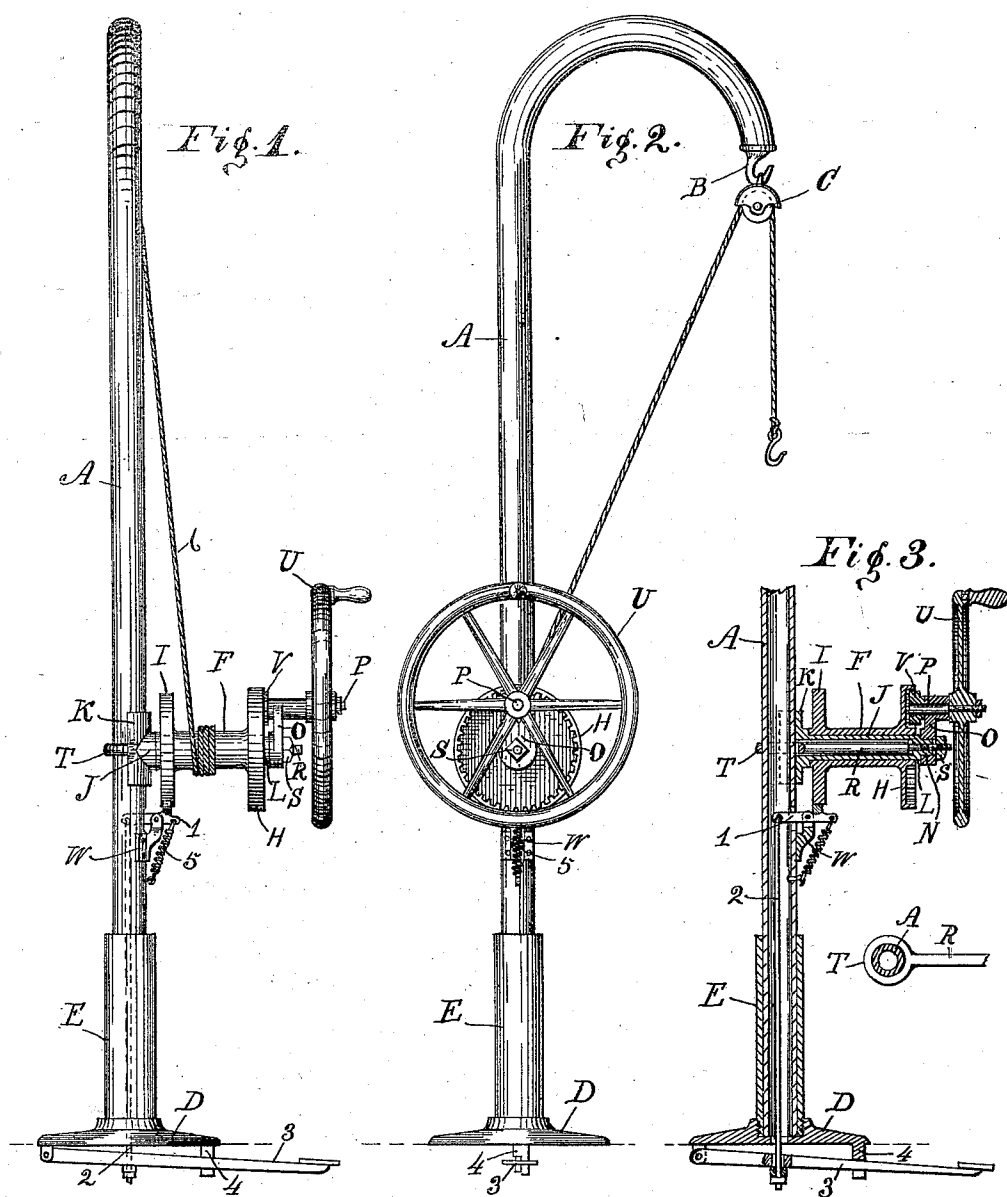


(No Model.)

A. N. HADLEY.
PORTABLE CRANE.

No. 561,313.

Patented June 2, 1896.



Witnesses:

V. M. Hood.
M. Hood.

Inventor,

Artemus N. Hadley,

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UNITED STATES PATENT OFFICE.

ARTEMUS N. HADLEY, OF INDIANAPOLIS, INDIANA.

PORTABLE CRANE.

SPECIFICATION forming part of Letters Patent No. 561,313, dated June 2, 1896.

Application filed January 5, 1894. Renewed December 18, 1895. Serial No. 572,611. (No model.)

To all whom it may concern:

Be it known that I, ARTEMUS N. HADLEY, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Portable Cranes, of which the following is a specification.

My invention relates to an improvement in light portable cranes.

The object of my improvement is to provide a light crane adapted to be easily and securely set up on a track-bed or other like platform and which may be cheaply manufactured and convenient to use and transport, all as hereinafter fully set forth.

The accompanying drawings illustrate my invention.

Figure 1 represents a rear elevation, Fig. 2 a side elevation, and Fig. 3 a vertical section.

The mast and arm of the crane are formed, preferably, of a single piece of iron tube A, having at the outer end of the arm a hook B, from which a pulley-block C is suspended. The mast is supported in an upright position by means of a socket consisting of a base-plate D, preferably of cast-iron, having erected thereon a short section of tubing E, into which the mast fits easily, so as to turn therein.

The winch is constructed and is mounted on the mast in the following manner: A spool F, having at one end an internal gear-wheel H and at the other end a friction-wheel I, is mounted so as to turn on a hollow spindle J, which is provided at one end with a flange K, adapted to fit against and partially embrace the mast A, and provided at the other end with a shoulder L and square portion N. An arm O, having in its lower end an opening adapted to fit closely the square portion N and in its upper end a bearing for the short shaft P, is mounted on the spindle and is held in place, and the spindle is at the same time clamped to the mast by a bolt R and nut S, the bolt passing through the hollow spindle and having an eye T, which embraces the mast. The eye of bolt R is slipped over the mast, and the nut S being screwed upon the

other end forces arm O against shoulder L of the spindle and draws the mast closely against the flange K, thus clamping the winch to the mast at any desired point. Spool F is turned by means of a hand-wheel U, mounted on one end of shaft P, and a spur-pinion V, mounted on the other end and engaging gear-wheel H. For the purpose of holding the spool from turning, at any desired point I pivot to a bracket W, secured rigidly to the mast, a brake-lever 1. One end of lever 1 engages the periphery of the friction-wheel I, forming one end of the spool, and the other passes into the interior of the tubular mast and is connected by a rod 2 with a foot-lever 3, the rod being arranged in the axis of the tube and the foot-lever being pivoted to the under side of base-plate D. A stop 4, adapted to engage the upper edge of lever 3, is also formed on the under side of the base. Brake-lever 1 is held, normally, out of engagement with wheel I by a spring 5.

In operation base-plate D is secured by bolts to the truck-bed. (Represented by dotted lines.) Mast A is then set up in tube E, so as to turn therein. The load is lifted by winding cord 6 upon the spool F. When the load has been raised sufficiently high, the spool is locked in position by operator pressing the free end of the foot-lever 3 downward till it is engaged by the stop 4, thus clamping the outer end of the brake-lever against the periphery of wheel I. The crane may now be turned to bring the load over any desired point, and the load may be lowered and controlled by means of the foot-lever.

I claim as my invention—

1. In a crane, the combination of the mast, the eyebolt embracing the mast and projecting laterally therefrom, the nut, the hollow spindle having flange K and the shoulder L, the spool mounted on the hollow spindle, and having gear-wheel H, arm O, shaft P, pinion V, and hand-wheel U, all arranged to cooperate substantially as specified.

2. In a crane, the tubular mast, the base forming a step for the mast, the spindle secured to the mast, the spool having friction-

wheel I, and mounted on said spindle, the
bracket secured to the mast, the brake piv-
oted in said bracket and arranged to engage
the friction-wheel with one end while the
5 other end projects within the mast, the foot-
lever pivoted to the base, and the rod ar-
ranged axially in the mast, and connecting

the foot-lever and the brake, all arranged to
coöperate substantially as and for the pur-
pose set forth.

ARTEMUS N. HADLEY.

Witnesses:

H. P. HOOD,
V. M. HOOD.