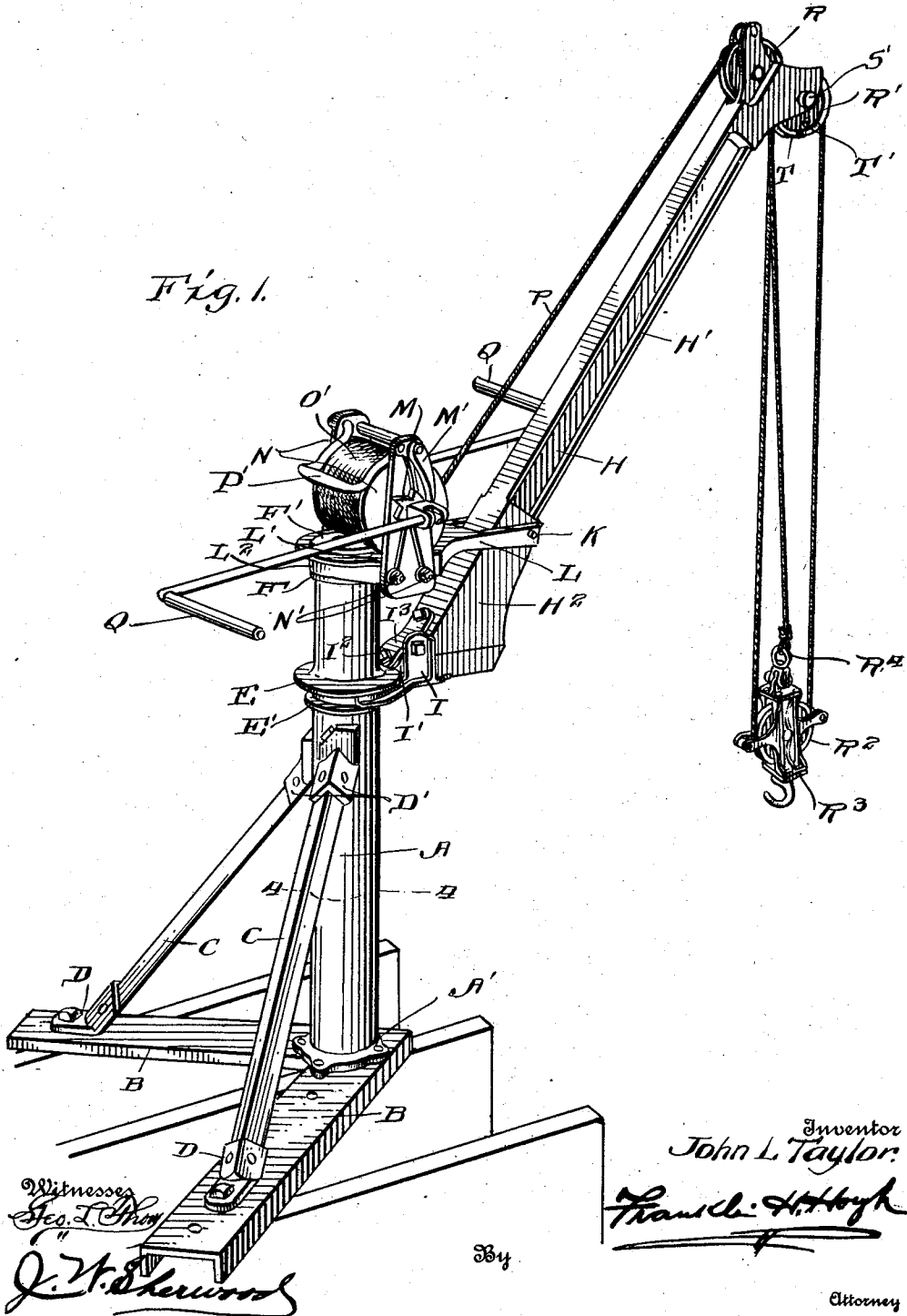


J. L. TAYLOR.
PORTABLE DERRICK.
APPLICATION FILED MAR. 9, 1911.

1,010,530.

Patented Dec. 5, 1911.

2 SHEETS—SHEET 1.

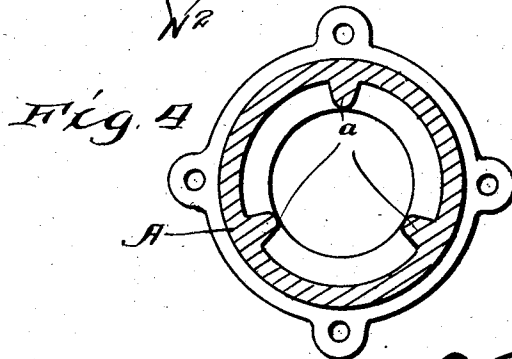
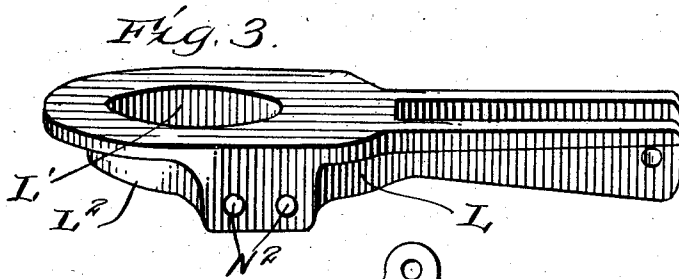
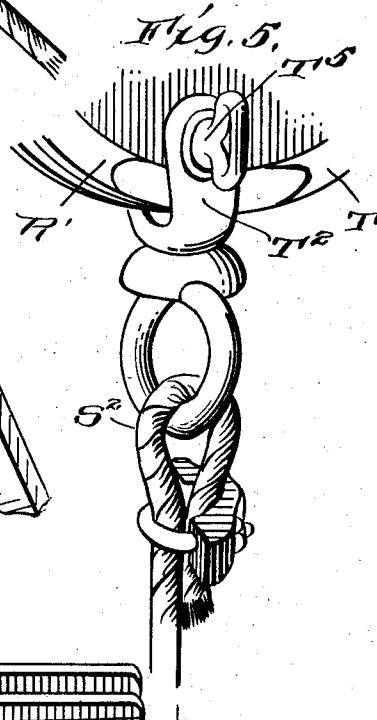
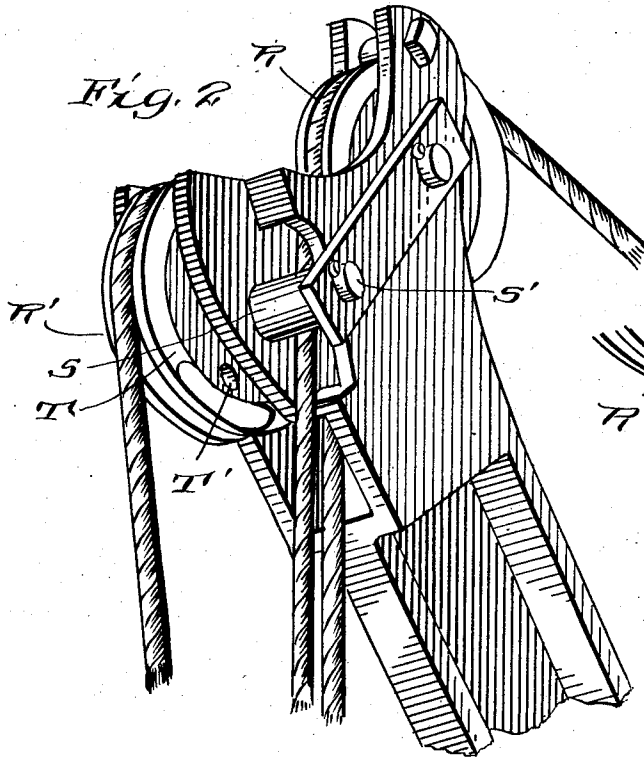


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2 SHEETS-SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN L. TAYLOR, OF CHICAGO, ILLINOIS.

PORTABLE DERRICK.

1,010,530.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed March 9, 1911. Serial No. 613,333.

To all whom it may concern:

Be it known that I, JOHN L. TAYLOR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Portable 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in portable derricks and the object in view is to produce a simple and efficient device of this nature so constructed that it may be conveniently taken apart and reduced to a compact form for storage or shipment and comprises essentially a short post whereby the operator may be able to conveniently reach the cranks and having a beam projecting at such an angle as will readily clear the side walls of a building and allow sufficient height to land the load either upon the building, trucks or elsewhere.

The invention comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a perspective view of the derrick. Fig. 2 is a detail perspective view of the pulley block and the end of the swinging beam. Fig. 3 is a detail perspective view of a part of the device. Fig. 4 is a sectional view on line 4—4 of Fig. 1, and Fig. 5 is a detail perspective view.

Reference now being had to the details of the drawings by letter, A designates the post which is preferably short as illustrated and is mounted upon the socket plate A' supported by the angle beams B which are fastened together and at right angles to each other, said beams resting upon the flanges thereof. Suitable angle bar braces, designated by letter C, are fastened at their lower ends to the angle plates D which are bolted or otherwise secured to said beams B and their upper ends secured to similar angled plates D' fastened to the post.

Upon reference to Fig. 4 of the drawings, it

will be noted that ribs *a* are formed longitudinally and radially upon the inner surface of the hollow standard or post in order to reinforce and strengthen the same. Two flanges, designated respectively by letters E and E', are formed upon the post or standard, preferably above the upper ends of the plates D', the upper of said flanges E projecting and overhanging the flange E' and at the extreme upper end of the standard or post are two other flanges, designated respectively by letters F and F', and spaced apart. The beam H, which may be of any suitable material, preferably of metal is reinforced by the longitudinal flanges H' and its lower end H² is enlarged and has bolted or otherwise fastened thereto a flanged bearing member I having a concaved forked portion engaging the space intermediate the flanges E and E'. An anti-friction roller I' is mounted upon a pin I² carried by the plate I³ which is bolted to the beam H, said roller being adapted to bear against the marginal edge of the flange E. Pivotally mounted upon the bolt K carried by the beam is a yoke L, an enlarged perspective view of which is shown in Fig. 3 of the drawings, and which has a circular outline opening L' therein of sufficient diameter to fit over the upper of said flanges F'. Said yoke L has a flange L² about the lower marginal edge of said opening and which is adapted to rest upon the flange F when the parts are adjusted in the manner shown in Fig. 1 of the drawings. Plates N are fastened by means of bolts N' to the opposite sides of the yokes, said bolts passing through apertures N² illustrated in Fig. 3 of the drawings. A shaft is journaled in said plates and upon which a cable carrying reel O' is mounted. A ratchet wheel M is fixed to rotate with said reel and a pawl M' is adapted to engage the teeth of said ratchet wheel to hold the same from rotation in one direction. Crank handles Q are fastened to the reel shaft, forming means whereby the latter may be rotated. A cable, designated by letter P, winds about the reel and a bail-shaped brake member P' is pivotally mounted upon the plates N and serves as a means for braking the reel.

Mounted upon the beam H are the two pulleys R and R', details of which are shown in Fig. 2 of the drawings, and a cable P passes about the pulley R, thence

about the pulley R^2 carried by the block R^3 , thence up and about the pulley R' and is fastened to the eye R^4 .

Upon reference to Fig. 2 of the drawings, it will be noted that a roller S is journaled upon a pin S' and against which the cable is adapted to bear when swung laterally at an angle and thereby reducing the friction to a minimum.

Referring to Fig. 2 of the drawings, it will be noted that the flange T has an aperture T' therein adapted to receive a pivot pin T^5 carried by a clevis member T^2 and to which the cable P is adapted to be fastened when it is desired to adjust the apparatus to lessen the leverage, in which event the cable is detached from the block R^3 and taken from about the pulley R' and the cable connected in the manner shown in Fig. 5 of the drawings.

By the provision of a derrick made as shown and described, it will be noted that, by reason of the short post, the operator may conveniently operate both cranks and the swinging beam projecting at such an angle as will clear the walls of a building and at the same time have sufficient height to land the load upon the building or truck. It will also be noted that the parts of the beam may be readily adjusted in position by simply swinging the beam to a vertical position and raising the yoke over the flange F' , the forked end of the member I readily separating from its bearing intermediate the flanges E and E' .

What I claim to be new is:—

1. A derrick comprising a post, a beam, a forked member fastened thereto, flanges upon said post spaced apart and engaged by said forked member, a yoke pivotally connected to said beam and having an opening therein, a second pair of flanges at the upper end of the post, spaced apart, said opening in the yoke adapted to receive the upper of the flanges and to be held by the latter, a

reel carried by said yoke, pulleys upon the beam, and a cable winding about the reel and passing about said pulleys.

2. A derrick comprising a post, a beam, a forked member fastened thereto, flanges upon said post spaced apart and engaged by said forked member, a yoke having a forked end pivotally mounted upon said beam and provided with an opening, flanges spaced apart and projecting from the upper portion of the post and between which said yoke is adapted to have a bearing, a reel upon said yoke, pulleys upon the beam, and a cable winding about the reel and said pulleys.

3. A derrick comprising a post, a beam, a forked member fastened thereto, flanges upon said post spaced apart and engaged by said forked member, a yoke having a forked end pivotally mounted upon said beam and provided with an opening, a flange about the marginal edge of said opening adapted to rest upon the post, a reel upon the yoke, pulleys upon the beam, and a cable winding about the reel and said pulleys.

4. A derrick comprising a post, a beam, a forked member fastened thereto, flanges upon said post spaced apart and engaged by said forked member, a yoke having a forked end pivotally mounted upon said beam and provided with an opening, a flange about the marginal edge of said opening adapted to rest upon the post, a reel upon the yoke, pulleys upon the beam, a cable winding about the reel and said pulleys, an anti-friction roller journaled upon the beam adjacent to one of said pulleys and against which said cable is adapted to bear.

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

JOHN L. TAYLOR.

Witnesses:

GEARY V. STILGEN,
CLARA M. PROCHNON.