No. 704,836. Patented July 15, 1902.

T. KAUFFMAN.

LIFTING CRANE.

(Application filed Dec. 2, 1901.)

(No Model.) 2 Sheets—Sheet 1.

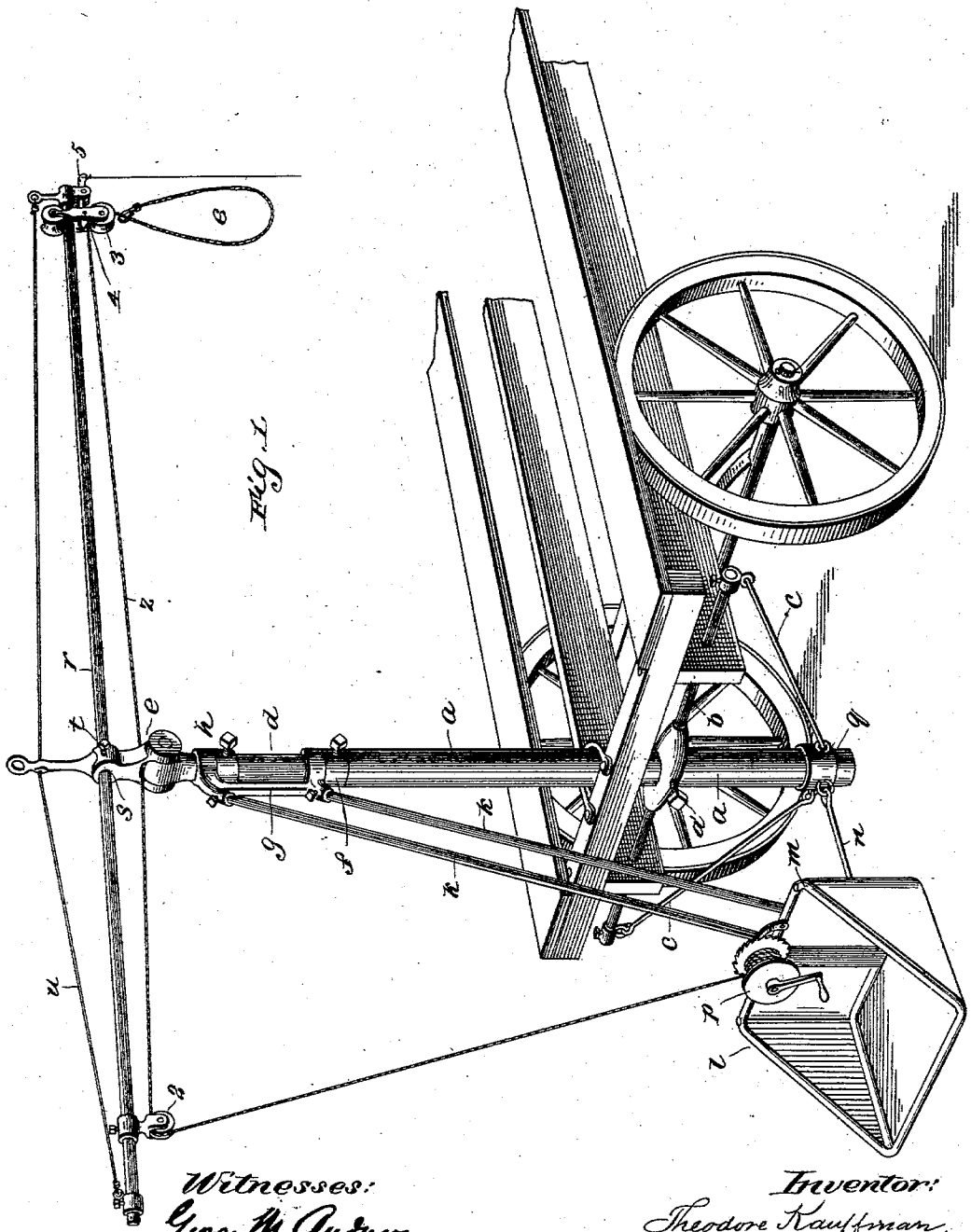


Fig. 1.

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Inventor:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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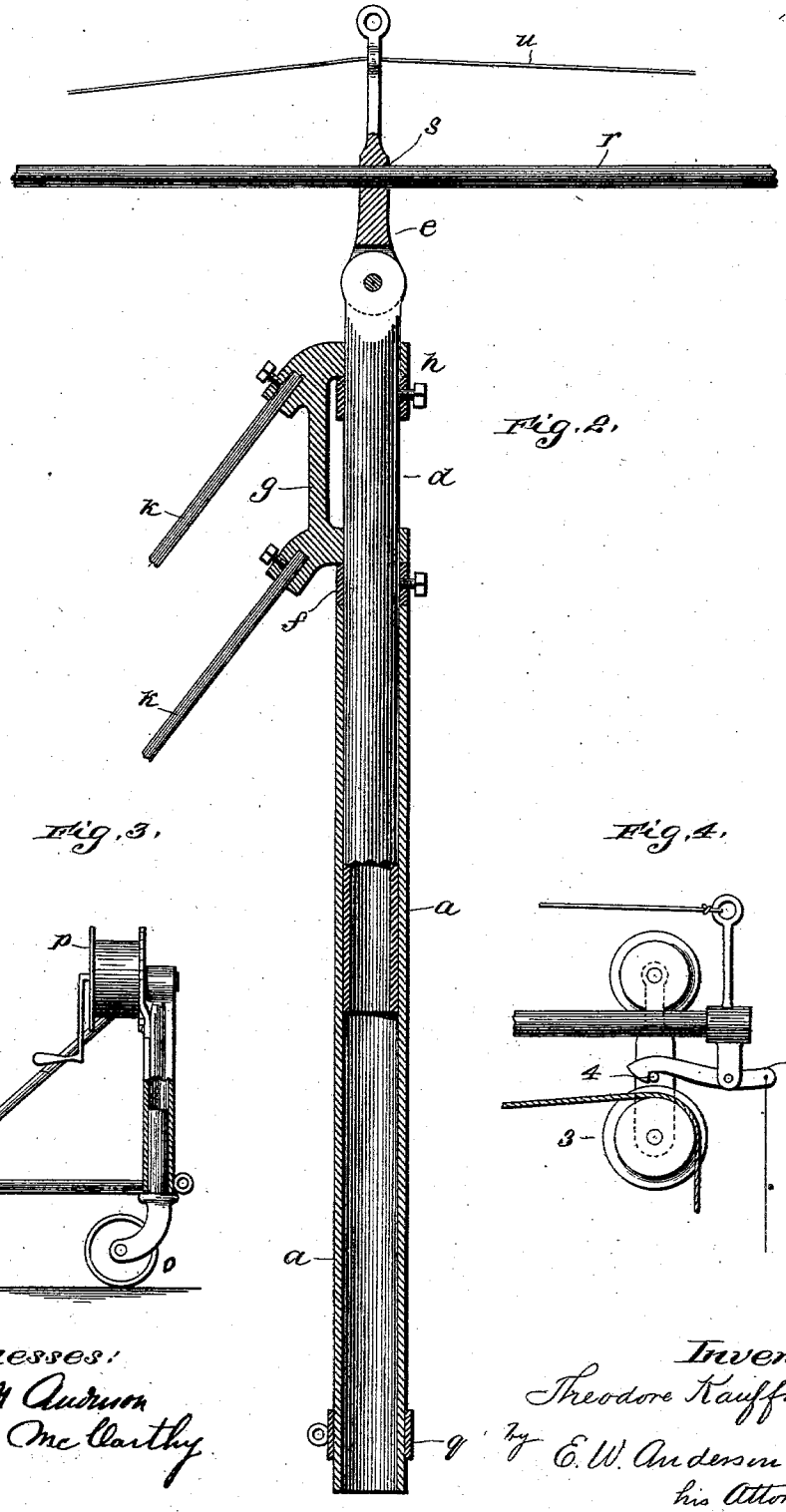


Fig. 2.

Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

THEODORE KAUFFMAN, OF OSBORN, OHIO.

LIFTING-CRANE.

SPECIFICATION forming part of Letters Patent No. 704,836, dated July 15, 1902.

Application filed December 2, 1901. Serial No. 84,438. (No model.)

To all whom it may concern:

Be it known that I, THEODORE KAUFFMAN, a citizen of the United States, and a resident of Osborn, in the county of Greene and State of Ohio, have made a certain new and useful Invention in Lifting-Cranes; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of my crane as applied. Fig. 2 is a sectional detail view, on a larger scale, of the bearing-post *a* and adjacent parts. Fig. 3 is a detail end elevation of the counterbalance-platform, showing the caster-wheel thereof. Fig. 4 illustrates the operation of catch 5.

The invention has relation to cranes for loading wagons and other field purposes; and it consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter *a* designates a bearing-post of a wagon or field-rack for transporting corn-shocks, &c.

b represents a socket-iron secured to the end framing of the wagon and in which said post is adjustably secured by means of a set-screw *a'*, said socket-iron being braced by rods *c*, connected to ring or collar *q* upon the post. *d* is a post which is stepped in this socket and secured therein by means of a suitable set-screw.

e indicates the pivotal center piece or crane-head, which is pivoted to the top portion of the post *d* by means of the ring-bearing *f* and the bracket or frame *g*, which is secured to the crane-head by the collar *h*. To this frame are secured the arms *k k*, which may be made of gas-pipe and which are rigidly connected at their lower ends to the counterbalance-platform *l*. This platform is made of rod metal or piping and is provided with a brace-rail *m* and with a winding-reel *p*. The platform is also provided with a radial hook-iron *n*, which extends to the socket-foot *q* and is connected thereto by means of its hook end and an eye-lug of said socket-foot. The crane-head is provided with an extension rod or beam *r*, which is adjustable in the bearing *s* of the crane-head, so as to provide more or less length of arm at the lifting end. The adjustment is secured by means of a set-screw *t*. The lifting rod or beam *r* is braced from the top of the crane-head by means of the guy-wires *u*. The top of the crane-head is formed with an eye or ring to enable it to be lifted from the socket when it is desired to remove it to another position.

At the rear end of the lifting-rod *r* is provided the adjustable pulley 2, which is connected to a ring-slide on the rod *r* and is secured in position thereon after adjustment by means of its set-screw. The other arm of the lifting-rod or crane-rod *r* is provided with a trip-pulley 3, having a trip connection 4 with a catch 5 of the crane-rod.

Z is the lifting-rope, which is connected to the winding-reel on the counterbalance-platform and passing over the pulleys 2 and 3 terminates in a loop 6, whereby it is designed to attach it to a shock of corn or other bundle which it is desired to lift and place in position on the wagon.

The operator having adjusted the crane-rod so that its lifting-arm is of suitable length for the work moves the counterbalance-platform around in such a manner as to bring the loop 6 of the rope over the shock or bundle to be lifted. The loop is placed around the shock, and then the operator by turning the crank of the reel lifts the shock. If it is heavy, the operator can stand on the platform *l* or place stones or other substances thereon to counterbalance the weight of the shock in order to avoid racking or tilting the wagon. When the shock is raised to the proper height to bring it above the level of the place of deposit on the wagon, the crane is turned so as to bring its lifting-arm over the place of deposit, and the rope being further wound on the reel the shock is raised sufficiently to trip the catch of the pulley 3, which, with its load, moves along the crane-arm until it is over the place of deposit, when the shock is lowered into place.

The lifting-crane is detachable and portable and can be used in connection with a number of wagons as they are severally loaded.

It is of simple and strong construction and is designed to serve an important purpose in facilitating fieldwork.

Usually the counterbalance-platform is provided with a caster-wheel having a vertical stem which plays in a socket-bearing and serving to facilitate the movement of the platform when heavily weighted.

Having described the invention, what I claim, and desire to secure by Letters Patent, is—

1. A lifting-crane, having the upright bearing-post in two sections adjustable vertically, the counterbalance-platform, having bracing connections with said post, the winding-reel carried by said platform, the laterally-extending or horizontal crane-rod carried by said post, its pulleys, and the lifting-rope, substantially as specified.

2. In a lifting-crane, the combination with the upright post provided with wagon connections, and a laterally-extending rod or jib, of the counterbalance-platform adapted for the operator to stand therein, having a supporting-wheel resting upon the surface of the ground, and braced to said post, the winding-reel carried by said platform and the lifting-rope, substantially as specified.

3. The detachable crane comprising the crane-head, extension-rod, its movable pulleys, the bracket or frame, for connection to the bearing-post, the lifting-rope, the counterbalance-platform, the connections of the latter to said frame, the socket-foot, and the connection thereof to said platform, substantially as specified.

4. The combination with a wagon or rack, and its bearing-post and socket devices for holding said post, of the detachable crane-head, its extension-rod, and the pulleys thereon, the trip device, the bracket or frame secured to the crane-head, the counterbalance-platform connected to said frame, the reel, and lifting-rope, and the radial hook of the counterbalance-platform, substantially as specified.

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

THEODORE KAUFFMAN.

Witnesses:
O. E. SWADNER,
C. P. JOHNSTON.