

No. 750,409.

PATENTED JAN. 26, 1904.

T. L. F. STACK.
LIFTING MECHANISM.
APPLICATION FILED JUNE 17, 1901.

NO MODEL.

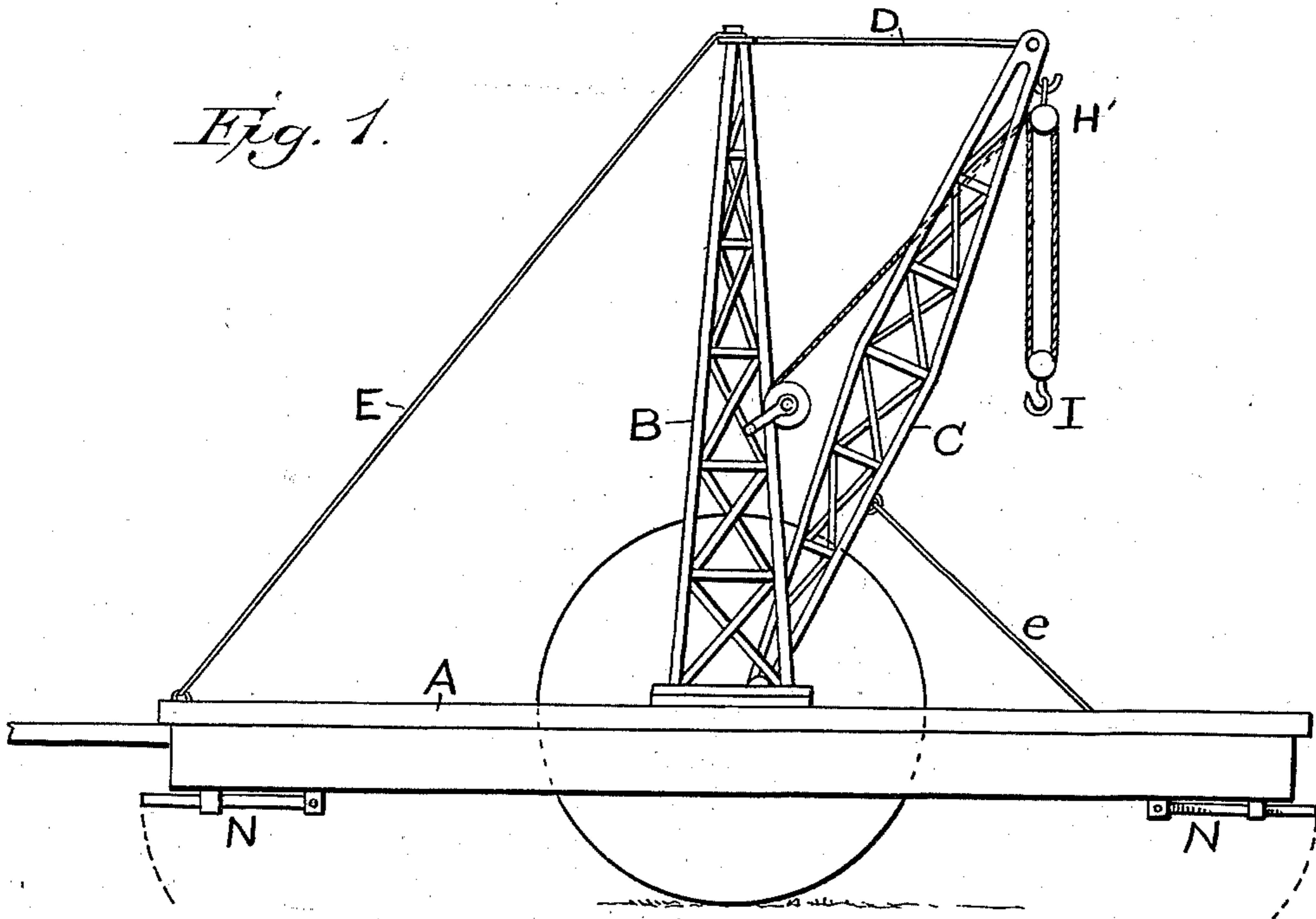
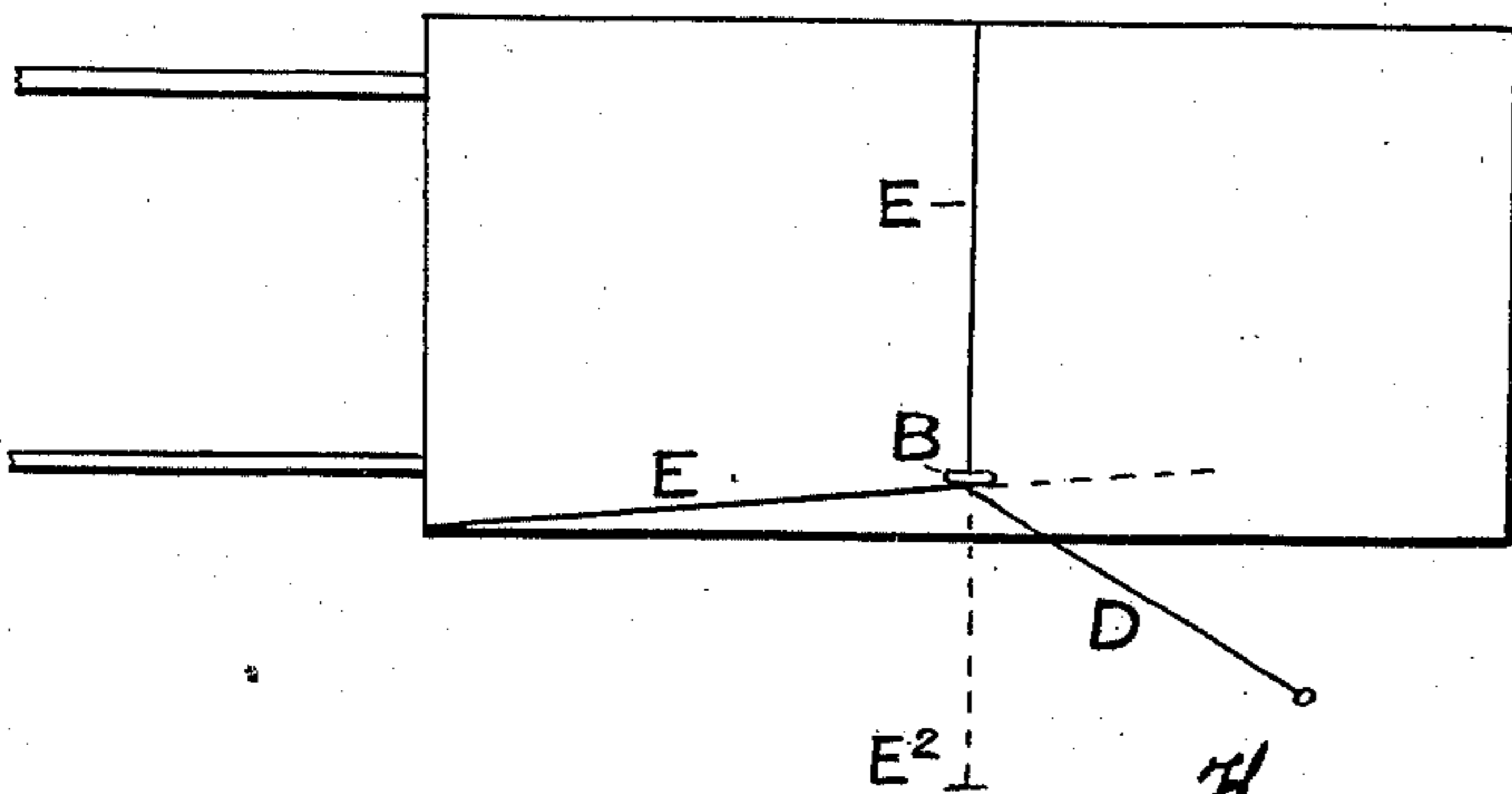


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS L. F. STACK, OF DRUMQUIN, IRELAND.

LIFTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 750,409, dated January 26, 1904.

Application filed June 17, 1901. Serial No. 64,845. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LINDSAY FITZ-GEORGE STACK, residing in Drumquin, county of Tyrone, Ireland, have invented certain new and useful Improvements in Lifting Mechanisms, (for which application has been made in England, under No. 7,243, dated April 6, 1901,) of which the following is a specification.

This invention has for its object a simple device for use in loading and unloading wagons and lifting and lowering articles on the farm or elsewhere. It is applicable also in loading and unloading on shipboard; and the invention consists, essentially, in a very simple form of crane and its attachments.

The invention will be understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the crane. Fig. 2 is a diagrammatic orthogonal projection of the crane.

The crane consists of a cart or wagon, such as A, having fixed thereon a mast B. To the base of this mast B or to the platform on which the mast is fixed I attach a jib C and connect the top of the jib and the top of the mast with a guy-rope D. Two or more guy-ropes E also steady the mast on the sides of the cart A. The jib C, nearer the bottom, is preferably attached also by a loose guy-rope *e* with one or two points on the sides or floor of the cart A, and consequently has only a limited range of motion, which is all that is required. On the top of the jib C may be arranged a pulley (not shown) over which passes the rope G, connected with a small winch H on the mast, or else the power is applied directly to a pulley-block at top of jib by using a differential block H' or other suitable device.

The rope D, connecting the top of the jib C with the top of the crane B, can be adjustable as regards length in any well-known manner, and thus the jib can be placed at any angle with the floor of the cart. The cart, besides its wheels, is provided at opposite sides of its axle with hinged legs N, whereby

it can be at once made rigid on the ground, and thus support the weight on the crane without any one having to hold the shafts or if there be a horse in the shafts without the weight coming on the horse.

Fig. 2 is a diagram in orthogonal projection of the crane on the plane of the cart, in which B is the top of the mast, connected with the floor of cart by the guy-ropes E. D is the rope from top of mast to top of jib C. It is convenient to allow the jib a travel within the angle shown by dotted lines E' B E², but to be retained within that range of motion by the guy-rope *e*, Fig. 1. This travel is sufficient, for once the article or load has been raised and placed on the cart within said angle it is quite easy to shift it to any part of the floor.

I declare that what I claim is—

1. An apparatus for loading and unloading bulky or heavy articles, comprising a cart or wagon on which is fixed a mast, a jib with guy-rope at one side of said mast, and at the other side two or more guy-ropes so connecting the cart with the top of the mast as to steady the latter, and resist the weight of the load carried by the jib, in combination with front and rear legs hinged to the cart at opposite sides of its axle so that it can when required be made rigid on the ground, and thus support the weight of the crane without having to hold the shafts or having the weight coming on a horse in the shafts, substantially as described.

2. In apparatus of the kind mentioned, the combination with the jib of a loose guy-rope *e* secured at one end to the cart and at its other end secured to the lower portion of the jib to confine the jib to a limited range of motion, substantially as described.

In witness whereof I have hereunto signed my name, this 23d day of April, 1901, in the presence of two subscribing witnesses.

T. L. F. STACK.

Witnesses:

STIRLING J. LEEDS,
RICHARD A. MORGAN.