

No. 764,987.

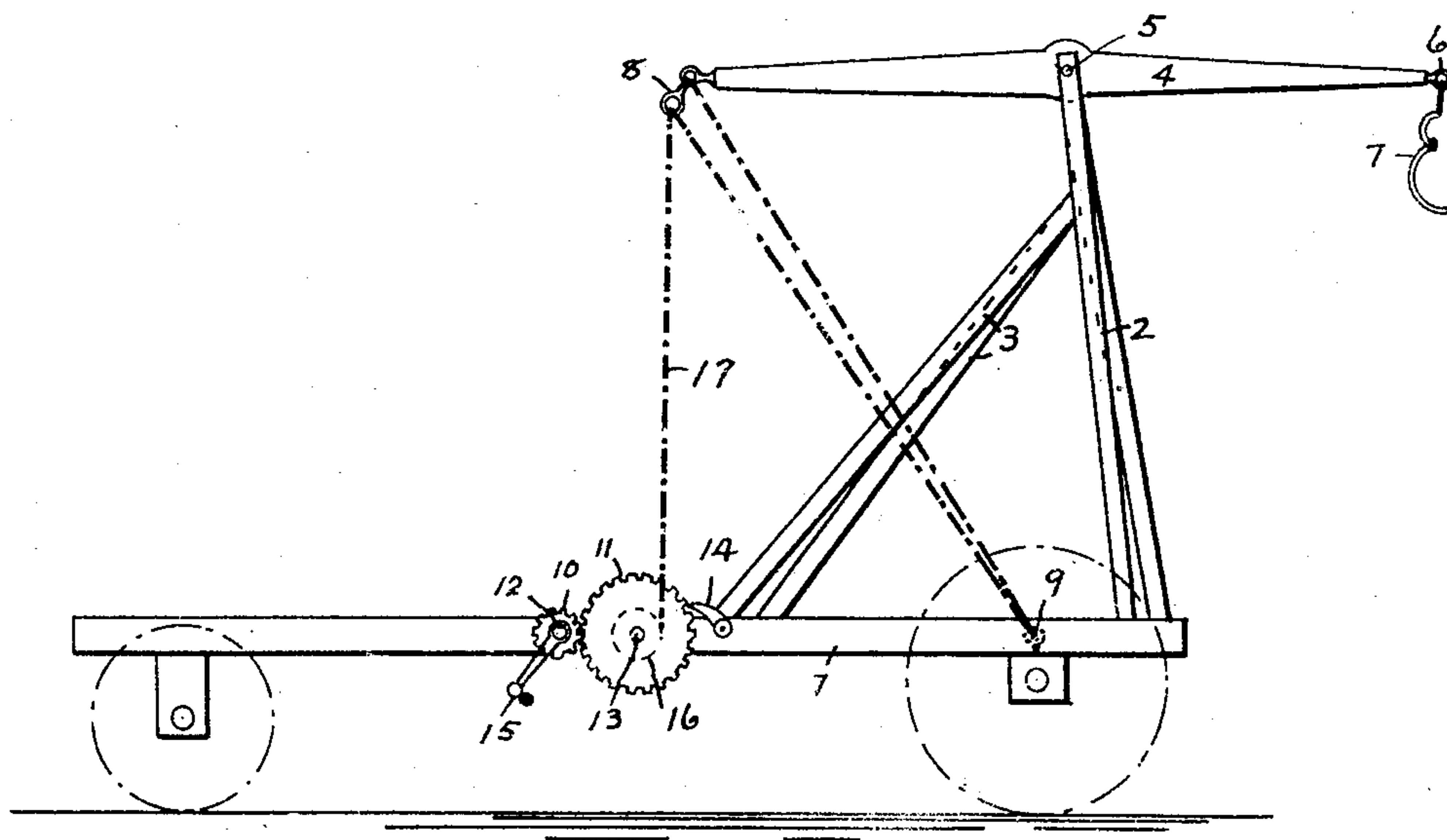
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F. D. BYLER & D. M. MAST.

POLE DERRICK.

APPLICATION FILED MAR. 17, 1904.

NO MODEL.



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Witnesses

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# UNITED STATES PATENT OFFICE.

FRANK D. BYLER AND DAVID M. MAST, OF MORGANTOWN, PENNSYLVANIA.

## POLE-DERRICK.

SPECIFICATION forming part of Letters Patent No. 764,987, dated July 12, 1904.

Application filed March 17, 1904. Serial No. 198,569. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK D. BYLER and DAVID M. MAST, citizens of the United States, residing at Morgantown, in the county of Berks and State of Pennsylvania, have invented new and useful Improvements in Pole-Derricks, of which the following is a specification.

This invention relates to improvements in pole-derricks; and the object of the same is to provide a portable appliance whereby a pole or other like object may be conveniently handled.

To this end our invention consists in the details of construction and arrangement of the several parts more fully described in the following specification and claim and as illustrated in the accompanying drawing, in which the figure shows a side elevation of our device.

Referring more particularly to the drawing, the numeral 1 designates a wagon-frame suitably mounted on wheels and formed with two standards or uprights 2, secured near the rear end of the frame and beyond the axle of the rear supporting-wheels, their free ends leaning slightly forward and toward each other. Braces 3 are secured to the standards and rest on the frame 1 near the center thereof. A swinging beam or lever 4 is fulcrumed between the upper ends of the uprights or standards 3 at approximately its central point on a shaft 5, which is supported by the upper ends of the said standards 2. To the rear end of the lever is secured a hook 6, to which is attached a clamp 7, adapted to engage a pole. To the forward end of the lever is also attached a hook similar to the hook 6, and connected thereto is a pulley 8.

The numeral 9 designates a pulley which is secured to the rear axle of the wagon, and about midway of the length of the wagon-body we secure a shaft 13, mounted in suitable bearings. On one end of said shaft is a gear-wheel 11. A second shaft 12 is secured to the framework in advance of the main shaft 13, and 10 is a gear-wheel secured to the end thereof, and said gear meshes with the gear-wheel 11. A pawl 14 is secured to the framework and is adapted to engage the gear-wheel 11. To the end of the shaft 12 is secured a hand-crank 15

for operating the machine. On the shaft 13 we provide a roller or cylinder 16, forming a windlass around which a flexible rope or chain 17 is adapted to be wound. This rope passes from the cylinder to the pulley 8 on the front end of the lever 4, then to the pulley 9 on the axle, and then returns to the front end of the lever 4, where one end is secured to the hook at that point.

When it is desired to raise or set a pole, the clamp 7 is placed around it, and the operation of the crank 15 will wind the rope or chain 17 on the cylinder 16, thus drawing the front end of the lever 4 down, raising the rear end thereof, and with it the pole, until it has attained the desired height. The pole is then brought into position and the pawl 14 released, when the weight of the pole will cause the rear end of the lever 4 to lower, and thus drop the end of said pole into the opening prepared for it.

The convenience of handling poles, removing and replacing them, or of handling other heavy objects is greatly facilitated by the use of our improved device.

With this construction it will be seen that not only the weight of the article to be lifted is exerted upon a point located approximately directly over the rear axle, but the strain and power exerted to raise the object is also directed on the rear axle, thus preventing any straining of the framework and overcoming all tendency to tilt the body. Furthermore, the end of the lever 4 extends beyond the rear of the frame, which allows the machine to be moved into such a position that the end of the frame is not in a position to interfere with the swinging or easy movement of the object lifted.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A device of the class described comprising a framework mounted on wheels, a pair of standards mounted near the rear end thereof and beyond the rear axle, said standards inclining forward and toward each other, a pair of braces, one end of each being secured to the framework at approximately its central point and the other engaging the standard at



a point remote from its upper end, a shaft extending across the standards near their upper ends and at a point approximately above the rear axle, a lever fulcrumed between the  
5 standards on the shaft and at a point intermediate its ends, the rear end of the lever extending some distance beyond the rear of the framework, a clamp carried by the rear end of the lever and a pulley secured to the forward end thereof, a second pulley secured to  
10 the rear axle beneath the fulcrum-point of the lever, a windlass secured to the framework midway of its length, at the base of the braces, and below the forward end of the lever and a

flexible member, one end thereof being secured to the forward end of the lever, passing thence around the pulley on the axle, thence around the pulley on the forward end of the lever and from there in an approximately  
vertical line to the windlass. 15 20

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FRANK D. BYLER.  
DAVID M. MAST.

Witnesses:

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