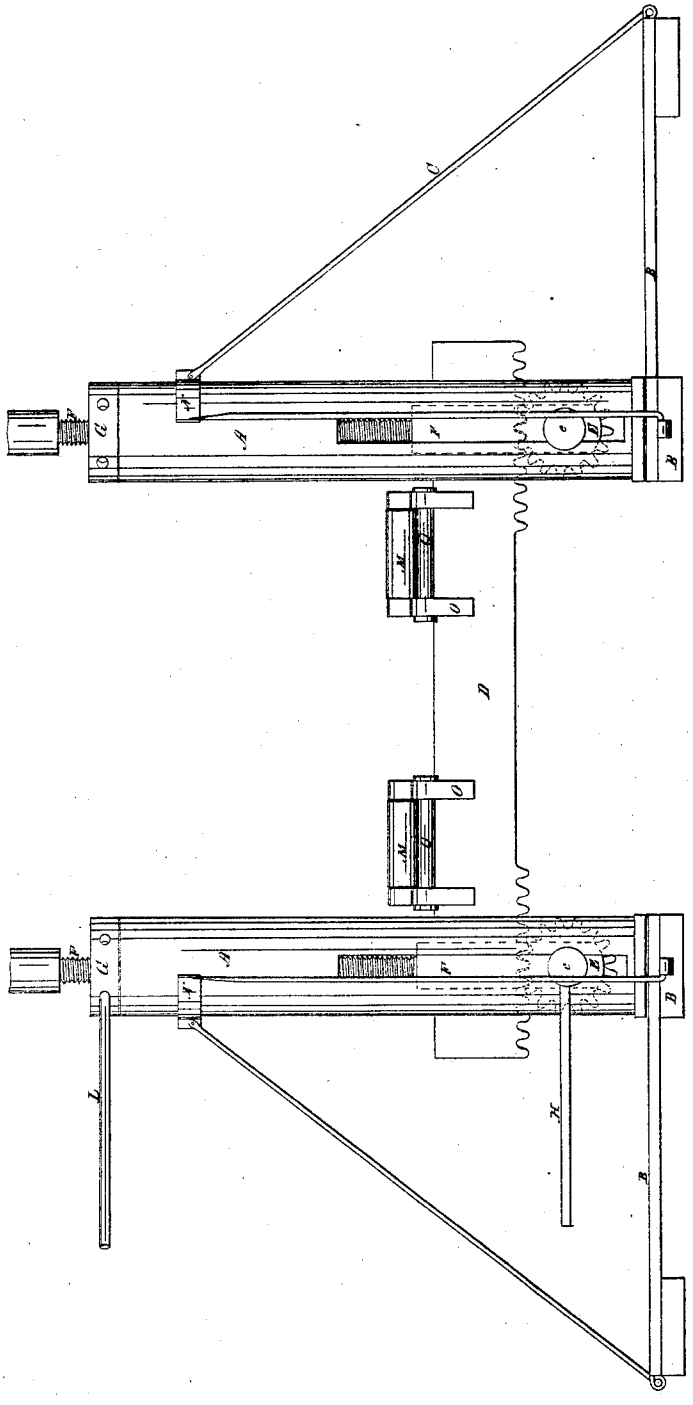
A. C. Richard,

Lifting Jack.

N° 20,372. Patented May 25, 1858.



AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

A. C. RICHARD, OF NEWTOWN, CONNECTICUT.

LIFTING-JACK.

Specification of Letters Patent No. 20,372, dated May 25, 1858.

To all whom it may concern:

Be it known that I, ALBERT C. RICHARD, of Newtown, in the county of Fairfield and State of Connecticut, have invented a new and Improved Lifting-Jack; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The lifting jacks in common use are either too small for managing heavy loads, or they are too large to be conveniently transported upon a common railroad car.

The object of my invention is to provide a lifting jack which may be used in place of the common jack carried upon the railroad tender, and yet be capable of answering the purpose of the large jacks which are not portable.

My invention consists of a portable lifting jack, by which railroad cars or other heavy bodies may be raised and traversed in every direction, whether upon a horizontal plane or an inclined one.

In the accompanying drawings, A, represents two standards, supported on two platforms, B. These standards are braced on the outside by rods C, which hook into the platform at the bottom and are connected with a collar N, at the top. The rods C, are metallic and act like separate springs, holding themselves in place.

A wide bar D, rests in slots in the standards A, and gears into two pinions E. These pinions E, are turned by levers H, so as to traverse the bar D at pleasure. The axles *e*, of the pinions rest on bearings in the lower end of the bar F. Upon the upper part of this bar is a screw, which works in a corresponding screw cut in the nut G. This nut is turned by the lever L, independently of the standard A upon which it rests, and by such turning raises or lowers the screw F, and consequently the pinion E and traverse bar D. Resting on this traverse bar are two friction rollers M, for a car or other object to rest upon and to facilitate its motion forward or backward. These rollers are supported in a frame O, which is adjustable upon the bar D, so as to suit the weight of the object to be moved.

When a car is to be moved by my jack screw, the platforms B are laid down, then the standards A and the braces C are inserted, and finally the bar D is adjusted to the proper height for the rollers M, to meet the bottom of the car. Now by means of the lever L, the nuts G, are turned upon the screw F, which thus elevate the pinions E, and the traverse bar D with the car itself. In this manner the car may be raised or lowered at pleasure. And by turning the pinion E the bar D may be traversed to the right or to the left, carrying with it the car.

If it be desired to move the car up an inclined plane, then one of the platforms B is placed higher than the other upon the inclined plane, and one of the screws F is elevated, while the other is lowered, until the traverse bar D becomes horizontal, when the machine is ready to operate as upon level ground.

The whole machine stands firmly when in use, and yet the standards, traverse bar, platform and braces are readily separated by first unhooking the braces C. Therefore my machine may be easily packed in a small compass for transportation, and it may be set in order for use in a few moments.

It can take the load from within six inches of the ground, and it is able to perform every function of the common railroad jack.

The traverse bar being provided with teeth, insures a certain motion. The friction rollers M, greatly facilitate the motion of the car when one end of the latter rests on a fixed support. But if necessary, two of my machines may be employed, and then a car will be moved upon these friction rollers with the greatest ease.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent of the United States is:

The standard A, provided with screws and pinions, in combination with the traverse bar D, and the adjustable friction rollers M, the whole being constructed substantially as set forth.

ALBERT C. RICHARD.

Witnesses:

G. WOFFENDEN,

DANIEL DAVIS.