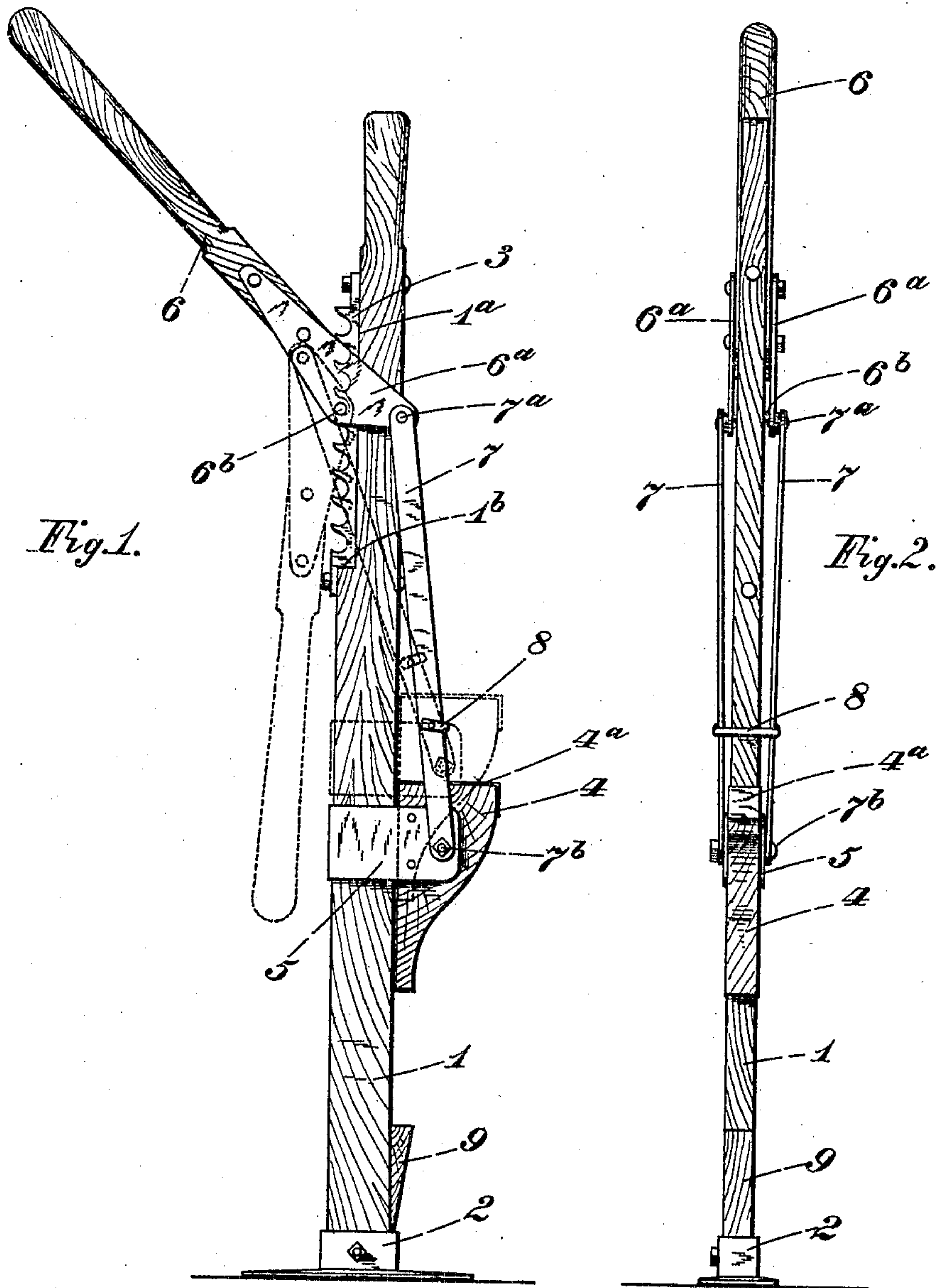


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J. R. EDWARDS.  
LIFTING JACK.  
APPLICATION FILED JULY 16, 1906.



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# UNITED STATES PATENT OFFICE

JOHN R. EDWARDS, OF COLUMBUS, OHIO.

## LIFTING-JACK.

No. 849,381.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed July 16, 1906. Serial No. 326,313.

*To all whom it may concern:*

Be it known that I, JOHN R. EDWARDS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Lifting-Jacks, of which the following is a specification.

The object of this invention is to provide an improved construction of lifting-jack especially adapted for use in lifting wagons and other vehicles.

Wagon-jacks of simple and strong construction have heretofore been made wholly of metal; but the trouble with such jacks is that where they are sufficiently large to be of general utility they are expensive and so heavy as to be burdensome.

One of the objects of my invention, therefore, is a construction in which metal and wood are combined in such a way as to secure size without sacrificing strength and durability.

Another object of the invention is to secure great freedom of movement of the operating parts, and especially of the load-supporting device.

The invention consists of the details of construction hereinafter described and claimed.

In the accompanying drawings, showing one embodiment of the invention, Figure 1 is a view in side elevation, and Fig. 2 is a view looking at the right-hand edge of the device as depicted in Fig. 1.

In the views, 1 designates the standard, which is of wood, and is provided at its lower end with a protecting-base 2, of iron. The standard has a handle at its upper end and is cut away at one side to form a vertical seat 1<sup>a</sup> and a horizontal shoulder 1<sup>b</sup>. Secured on the seat 1<sup>a</sup> and resting on the shoulder 1<sup>b</sup> is a toothed fulcrum-bar 3, of iron, suitable bolts being employed, as shown, to secure said bar in place.

4 is the load-supporting block, which is of wood, but has its upper edge armored with a metal strip 4<sup>a</sup>.

5 is a sheet-metal clip loosely embracing the standard and secured to the sides of the block 4. The handled portion or long arm of the lever 6 is of wood, but its short arm is constructed of two triangular metal plates 6<sup>a</sup>, secured to the sides of the end of the handle portion.

6<sup>b</sup> is the metal fulcrum-pin, secured be-

tween and uniting the sides of the metal plates 6<sup>a</sup>.

7 are link-bars, of metal, pivoted on pins, as seen at 7<sup>a</sup>, to the extremities of the plates 6<sup>a</sup>, and also pivoted, as seen at 7<sup>b</sup>, to the opposite sides of the metal clip 5. The two link-bars 7 are connected by a metallic yoke 8, which prevents unnecessary swinging of the links with reference to the standard. Because the two link-bars are thus united the structure can be treated as a unit.

The fulcrum-pin can be placed to bear upon any of the teeth, as usual in jacks of this general type.

It will be particularly noted that because the links are pivoted at their lower ends and with reference to the load-supporting block said block is carried or guided at all times in a horizontal position.

The link-bars 7, as shown, are of greater length than the distance between the fulcrum-pin 6<sup>b</sup> and the hinging-point 7<sup>a</sup> of the links with the lever, and the lever is inclined upward or outward (according to its position) from a line joining said fulcrum-pin and said hinging-point. With this construction the weight of the load after it has been raised to the desired position can be sustained by the fulcrum-pin, because when the lever is turned down to the limit of its downward movement, as indicated by broken lines, Fig. 1, the hinging-points of the links 7 are carried beyond a straight line joining both hinging-points of the link and the fulcrum-point, and the load-supporting block consequently locked by the weight of the load in the elevated position.

A wooden shoulder-piece 9 is added to the standard 1 near its base to prevent the block and lever from dropping inconveniently low on the standard.

It will be observed that all those portions of the jack that are directly subjected to wear or strain are of metal and that where there is transmitted strain on the wood it is distributed through volume that makes for convenience in size. Hence the jack can be of suitable size without being unduly heavy.

What I claim, and desire to secure by Letters Patent, is—

1. In a lifting-jack, a load-supporting block, a lever for operating the same having a fulcrum-pin, a link connecting said block and lever, combined with a standard of wood



provided with a shoulder on its side, and a metallic toothed bar secured to the side of the standard to be supported by said shoulder and to afford fulcrums for the fulcrum-pin of the lever.

2. As an improved article of manufacture, a lifting-jack comprising, in combination, a standard of wood having at its foot a metallic base-piece and a toothed metallic fulcrum-piece on its side, a metal-armored, load-supporting block having a metallic clip to embrace the standard, said block being slidable with reference to the standard, a lever comprising a long arm of wood and a metallic short arm secured thereto, said short arm provided with a fulcrum-pin to engage said toothed fulcrum-piece, and a metallic link hinged both to the short arm of the lever and to the load-supporting block.

3. As an improved article of manufacture, a lifting-jack comprising, in combination, a standard of wood, a load-supporting block of wood having a metallic clip slidably connecting the block with the standard, a toothed metallic fulcrum-piece secured to the side of the standard, a lever comprising a long arm of wood and a metallic short arm secured thereto, said short arm provided with a fulcrum-bearing to engage said toothed fulcrum-piece, and a metallic link depending hingedly from the short arm of the lever and hingedly connected to the aforesaid metallic clip.

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