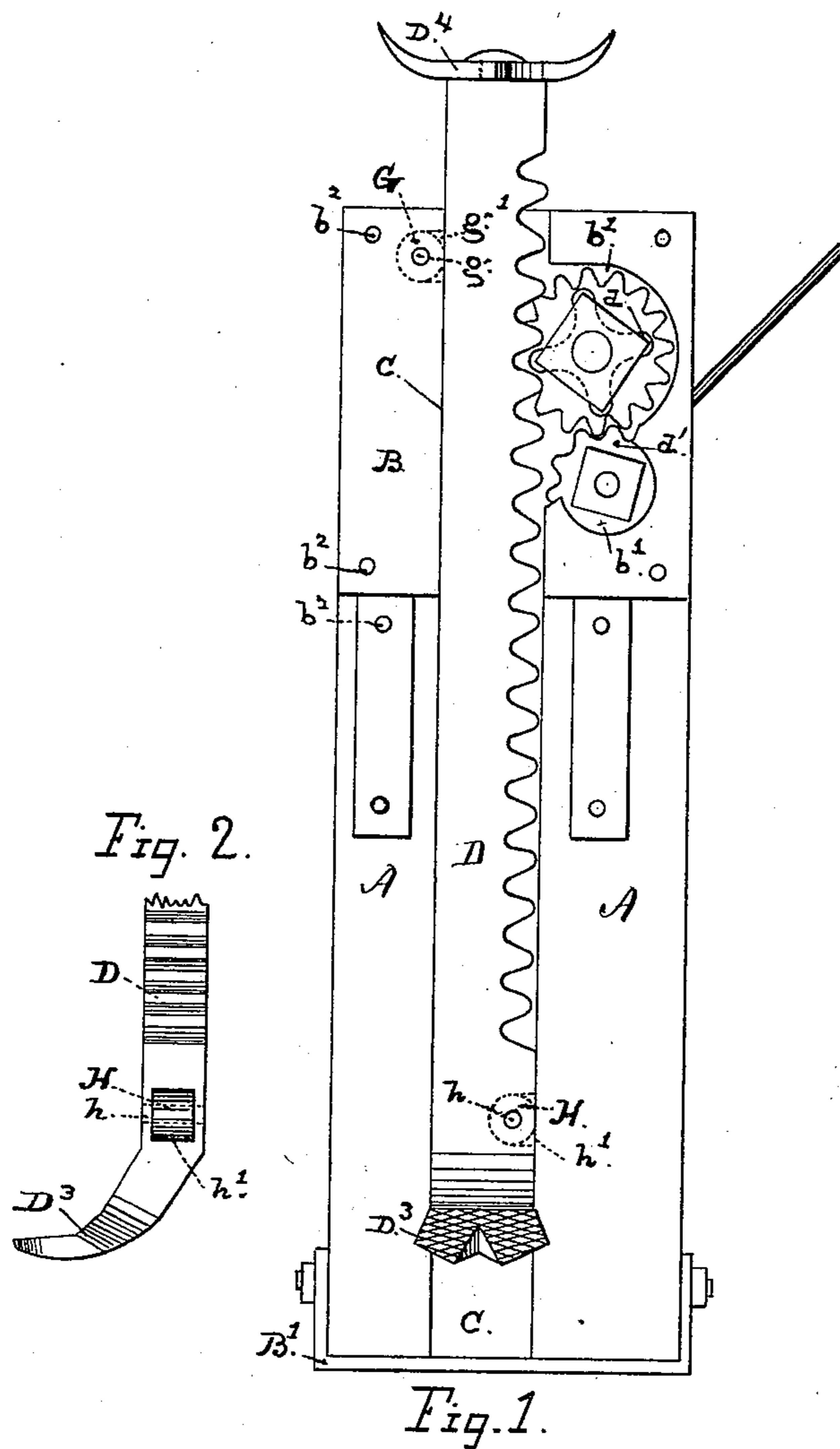


(No Model.)

L. P. GARCIN.  
LIFTING JACK.

No. 303,504.

Patented Aug. 12, 1884.



Witnesses:  
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By his Atty., *Samuel S. Brown*

# UNITED STATES PATENT OFFICE.

LEOPOLD PIERE GARCIN, OF SAN FRANCISCO, CALIFORNIA.

## LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 303,504, dated August 12, 1884.

Application filed April 12, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, LEOPOLD PIERE GARCIN, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Lifting-Jacks; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference being had to the accompanying drawings, that form a part of this specification.

My invention relates to lifting-jacks of that kind or class which is designed and adapted for lumbermen's use.

It consists in the construction and combination together of certain parts that co-operate to produce a strong, durable, and smoothly-working jack for rolling and otherwise handling heavy logs.

The drawings herein referred to show, in Figure 1, a front elevation of a lifting-jack constructed after my invention, with the covering-plate removed. Fig. 2 is a side view in detail of the lower end of the lifting bar or standard.

A is the wood, and B B' the metal, portions of the stand or body of the jack.

C is the slot or recess in which the bar D slides. The plate B has recesses b' for the gearing d d', and the shafts or centers of the gears find solid bearings in the metal parts of this head B, which is firmly held to the wood portions A by bolts b<sup>2</sup>. The part B' is a shoe secured to the bottom of the body. The bar D has teeth on the edge facing the pinion d, and at the lower end a projecting toe, D<sup>3</sup>. The head or top of the bar has a swiveled plate, D<sup>4</sup>, with projecting prongs.

G H are small broad-faced rollers fixed on studs and placed in the recess, and in position to guide the bar at the top and bottom, and prevent binding and excessive friction resulting therefrom. One roller, G, is placed in the slot, and the other one, H, is set into the bar itself. The slot-roller is fixed in a recess, g', in the side of the slot, so that it projects slightly beyond the line of the slot-face, and the other roller is set into a slot or recess, h', formed in the lower end of the bar D, near the toe, and with a similar projection of its face beyond the face of the bar. These two rollers are placed on opposite sides of the bar, and their faces are about equal in width to the slot. The upper one is behind the bar,

and the lower one is arranged to take the contact and pressure upon the opposite side, which is produced when the bar tends to take the diagonal position, or one out of the true vertical. This inclination of the bar is frequently induced by the unequal pressure of the weight brought upon the head, particularly in situations where the head cannot be brought directly under the log, and in such case only the prongs take the load, and the bar is thrown more or less out of line in its slot, and with a consequent increase of friction at the top rear edge and the bottom front edge of the bar. As the bar is projected out of the slot also this binding increases, and the power required to turn the crank has this additional friction to overcome; but the roller H in my improved construction, always traveling with the bar, takes the side of the slot and gives a rolling surface in contact at all times as the bar moves.

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

1. The combination of the bar D, operating-pinion d, and guide-rolls G and H, arranged, respectively, in the supporting-frame and bar D, and on axial sides of said bar, as set forth.

2. The combination of the toothed bar D, operating-pinion, supporting-frame, and guide-rolls, one connected to the bar D and the other to the frame, and bearing, respectively, upon the frame and upon the bar, said bar being provided with an outwardly-extending foot, as set forth.

3. The combination, with the bar D, provided with a lifting-toe and operating-gearing mounted upon the supporting-frame, of guide-rollers located and arranged with respect to each other, as shown and described.

4. A lifting-jack consisting of the frame or standard A B, suitably slotted and recessed for the purposes described, toothed bar D, provided with the lifting-toe D<sup>3</sup> and swiveled head D<sup>4</sup>, bar-operating gearing, and rollers G and H, located, respectively, in the frame and bar, and arranged upon opposite sides of the axial line of said bar, as shown and set forth.

LEOPOLD PIERE GARCIN. [L. s.]

Witnesses:

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