

No. 683,290.

Patented Sept. 24, 1901.

J. A. JOHNSON.  
JACK.

(Application filed May 18, 1901.)

(No Model.)

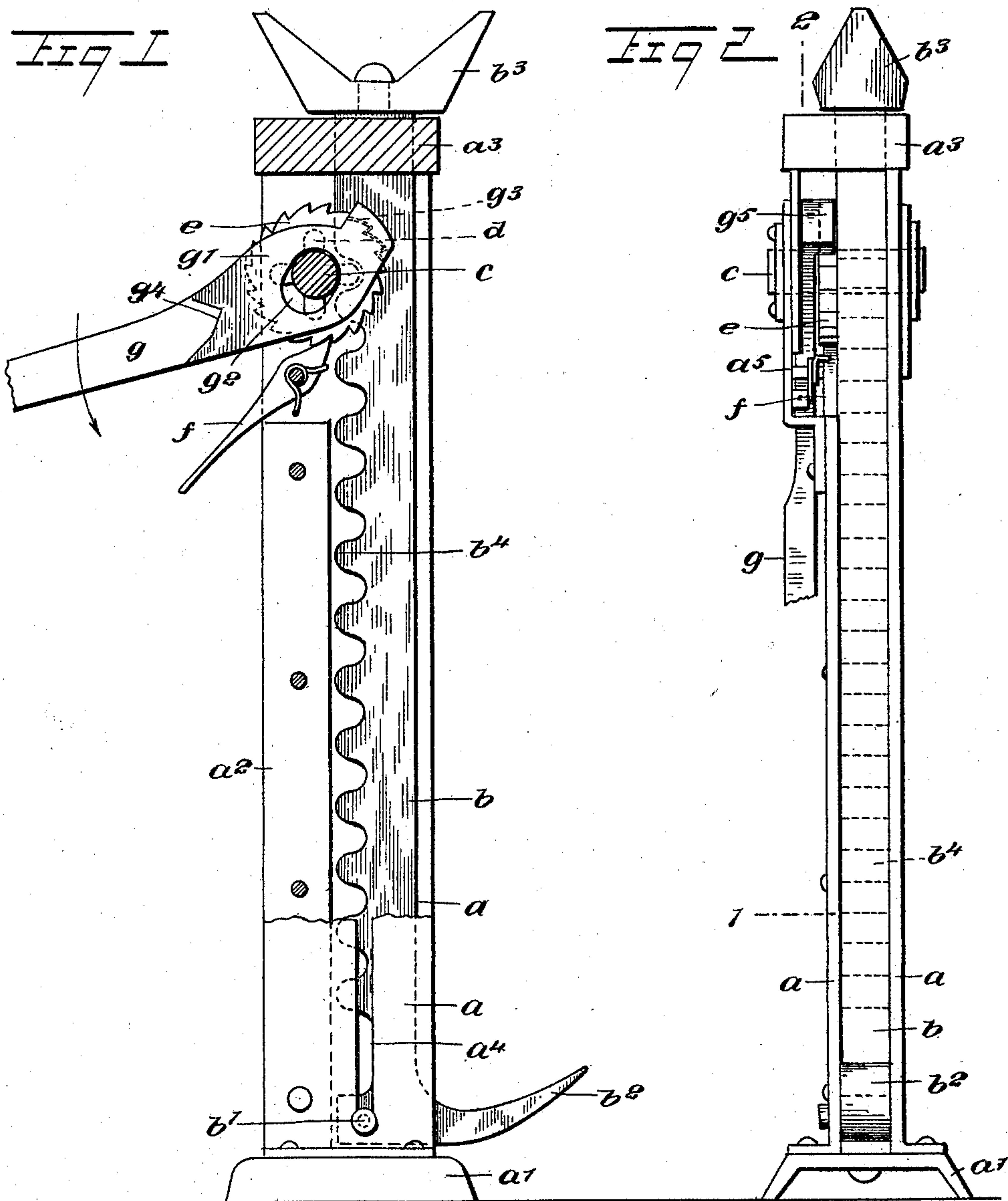
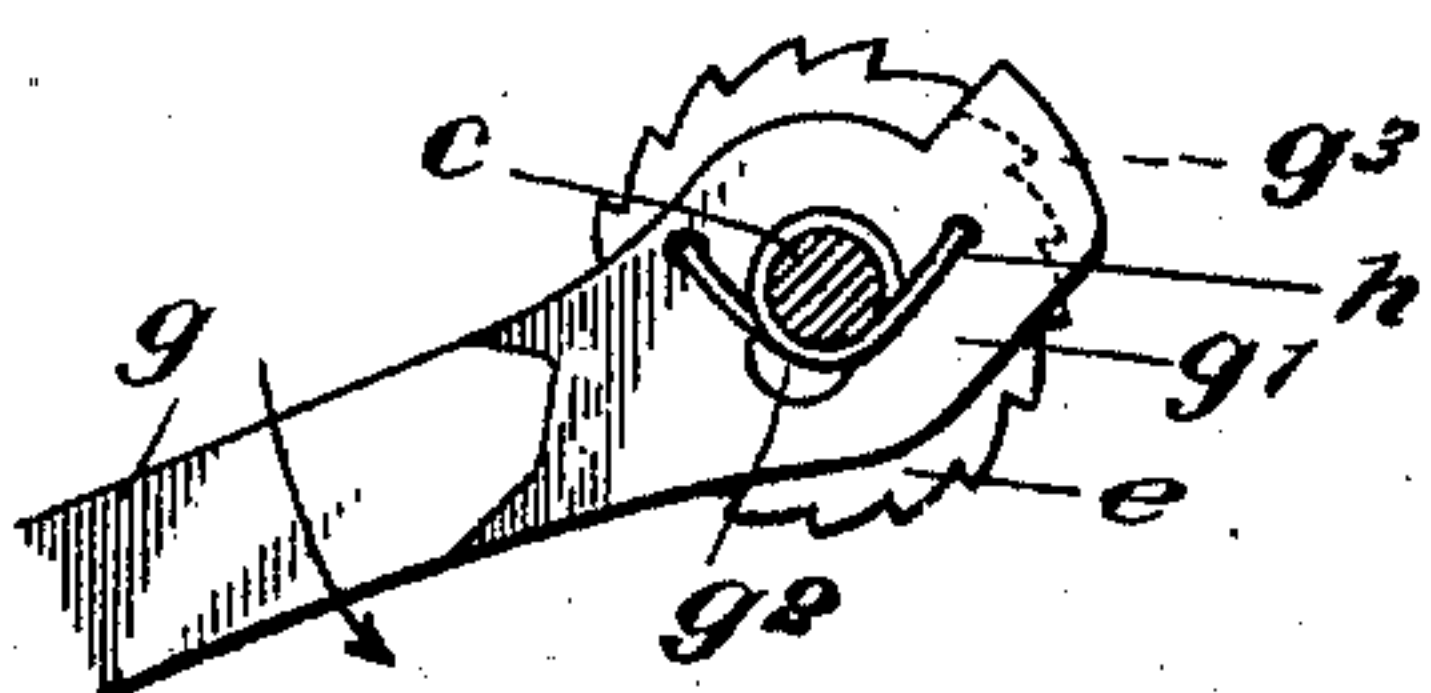


Fig 3

WITNESSES:

H. Walker

J. B. Owens.



INVENTOR  
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# UNITED STATES PATENT OFFICE.

JOHN ALFRED JOHNSON, OF HOQUIAM, WASHINGTON, ASSIGNOR OF ONE-HALF TO ELKANAH W. KARR, OF SAME PLACE.

## JACK.

SPECIFICATION forming part of Letters Patent No. 683,290, dated September 24, 1901.

Application filed May 16, 1901. Serial No. 60,488. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN ALFRED JOHNSON, a citizen of the United States, and a resident of Hoquiam, in the county of Chehalis and State of Washington, have invented a new and Improved Jack, of which the following is a full, clear, and exact description.

This invention relates to a lifting-jack of that class in which a lever is used with certain ratchet-like gear to raise the bar, and the improvement lies in the form of the lever and the arrangement of the same with respect to the gear which acts on the bar.

This specification is a specific description of two forms of the invention, while the claims are definitions of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the invention, with parts broken away, on the line 1 2 of Fig. 2. Fig. 2 is a rear elevation thereof, and Fig. 3 is a modification.

The stand or body is formed of two cheek-pieces or side plates  $a$ , mounted on a base  $a'$  and having a space-bar  $a^2$  set in between them at their front edges and running up from the base to a point near the top. The stand has a top cap  $a^3$  extending across between the cheek-pieces. Within the stand is arranged to slide vertically the bar  $b$ , which has a stud  $b'$ , fitted loosely in a slot  $a^4$  in the stand, whereby to guide the bar. The lower end of the bar has a lateral spur  $b^2$ . The bar projects loosely through the cap  $a^3$  of the stand and carries a head  $b^3$  at its upper end. The front edge of the bar is formed with gear-teeth, as indicated at  $b^4$ . An object to be lifted may be engaged either with the head  $b^3$  or spur  $b^2$ , as may be convenient.

Revolubly mounted within the stand, near the top thereof, is a transverse shaft  $c$ , carrying a pinion-gear  $d$ , in mesh with the teeth  $b^4$  of the bar  $b$ , and also carrying a ratchet-wheel  $e$ , lying alongside of the bar  $b$ , the stand having at this point an offset portion  $a^5$  for the reception of the ratchet-wheel and other parts, to be hereinafter described. A

pawl  $f$  is carried in the stand and removably engages the ratchet-wheel  $e$  to prevent return movement.

$g$  indicates the lever, which has its end  $g'$  reduced in thickness and widened. This end  $g'$  is formed with a diagonally-disposed slot  $g^2$ , and said end of the lever is set into the offset portion  $a^5$  of the stand, the slot  $g^2$  receiving the shaft  $c$  and the end of the lever lying loosely against the adjacent side of the ratchet  $e$ . The inner extremity of the lever  $g$  is turned laterally to form a stud or shoulder  $g^3$ , which when the lever is in the position shown in Fig. 1 lies against the periphery of the ratchet  $e$ . The working wall of this stud  $g^3$  is ratcheted to match the teeth of the ratchet  $e$ . The lever  $g$  has a shoulder  $g^4$ , arranged to strike the stand and limit the downward movement of the lever. When the parts are in the position shown in Fig. 1, downward movement of the lever will turn the ratchet-wheel and raise the bar of the jack. When the lever is moved upward to recover its grip on the ratchet, the slot  $g^2$  will cause the stud  $g^3$  automatically to disengage the ratchet, and the instant downward pressure is applied the lever will fall back to the active position shown and a further movement will be imparted to the ratchet. If desired, the lever may be fitted with a spring  $h$  (see Fig. 3) to assist in the operations above described.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A jack having a stand, a bar, a device engaging the bar to raise it, a wheel connected with said device, and a lever having a diagonal slot receiving the axis of the wheel to form the fulcrum of the lever and the lever having a laterally-turned end forming a stud which engages the periphery of the wheel.

2. A jack having a stand, a bar, a device engaging the bar to raise it, a wheel connected with said device, and a lever having a slot receiving the axis of the wheel and having a part engaged with the periphery of the wheel, whereby to drive it.

3. A jack having a stand, a bar, a device

mounted on the stand and working with the  
bar to raise it, said device moving around a  
certain center, and a slidably-mounted lever,  
the fulcrum of which is coincident with the  
5 center of said bar-raising device, the lever  
having a part engageable with the bar-raising  
device to actuate it.

In testimony whereof I have signed my  
name to this specification in the presence of  
two subscribing witnesses.

JOHN ALFRED JOHNSON.

Witnesses:

M. M. WAKEFIELD,  
NICK. PATTERSON.