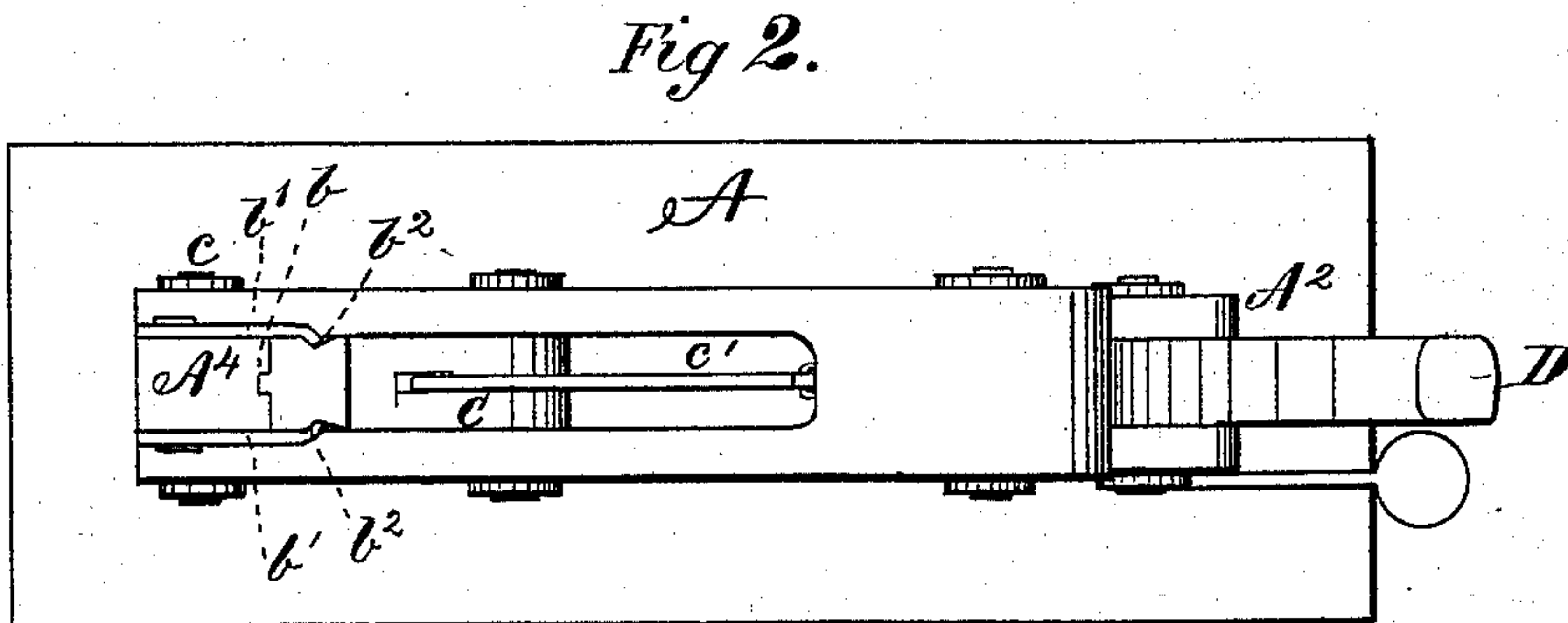
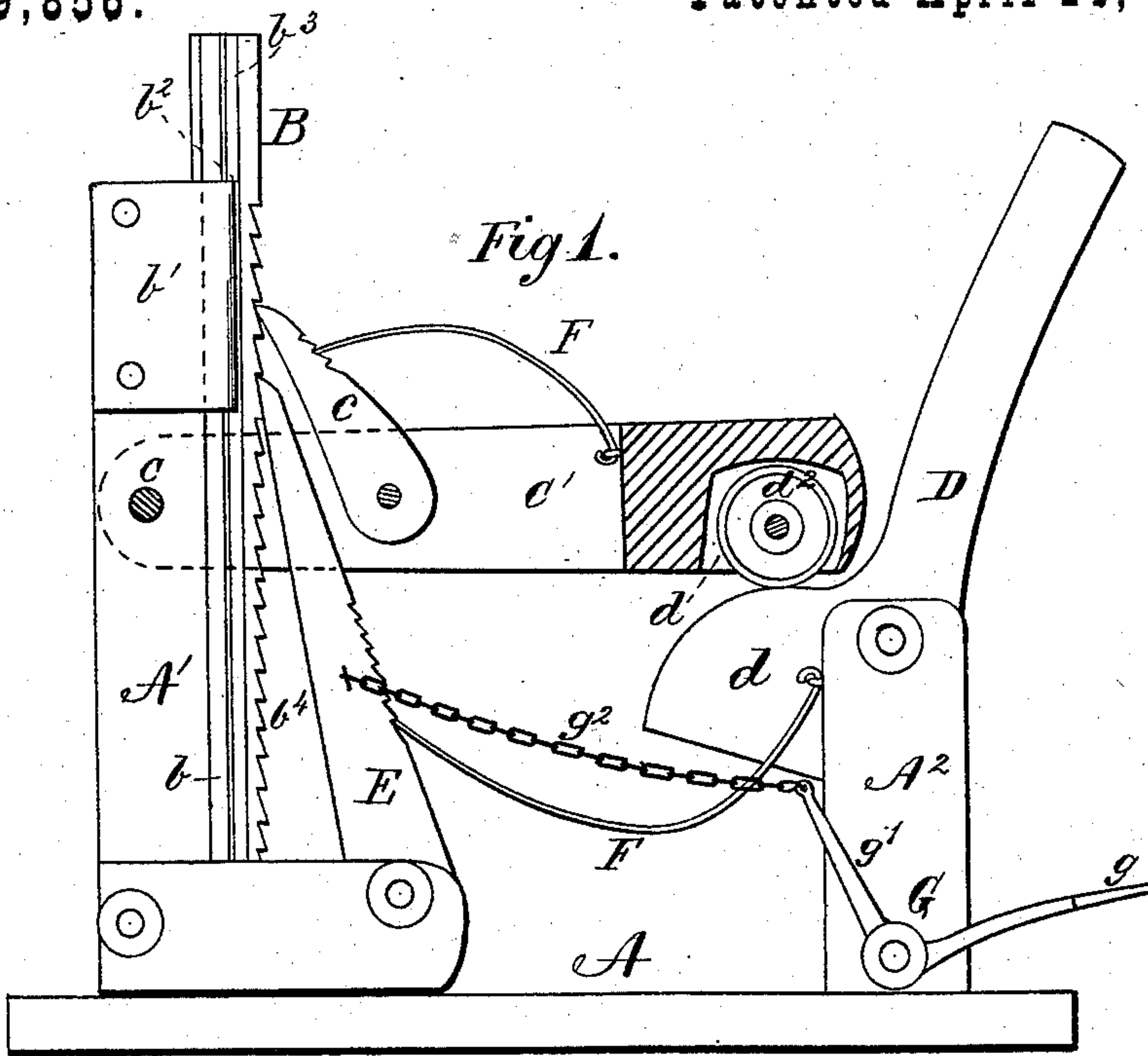


F. GRISCOM.
LIFTING-JACK.

No. 189,856.

Patented April 24, 1877.



Witnesses
B. C. Pole
Colborne Brooks

Inventor.
Frederic Griscom.
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his attorneys

UNITED STATES PATENT OFFICE.

FREDERIC GRISCOM, OF DOLINGTON, PENNSYLVANIA.

IMPROVEMENT IN LIFTING-JACKS.

Specification forming part of Letters Patent No. **189,856**, dated April 24, 1877; application filed April 6, 1877.

To all whom it may concern :

Be it known that I, FREDERIC GRISCOM, of Dolington, in the county of Bucks and State of Pennsylvania, 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 thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in lifting-jacks, the nature of which will be fully understood by reference to the accompanying drawings, in which—

Figure 1 represents a side view, partly in section, and Fig. 2 a plan of a lifting-jack constructed according to my invention.

In each of the views similar letters of reference are employed to indicate corresponding parts wherever they occur.

A represents the frame or stand of the device, which is provided with two vertical standards, $A^1 A^2$, to which are pivoted or connected the working parts, as hereinafter described.

The standard A^1 at a is provided with a groove or guide, b , adapted to engage with a corresponding guide or groove, b^4 , in the face of a sliding toothed lifting-bar, B, which is held securely in position against the standard A^1 by means of face-plates $b^1 b^4$, bolted or connected to the standard A^1 , and which, at their forward edges, are turned over or formed with a rim or guide, b^2 , adapted to run in grooves or channels b^3 in the lifting-bar B. C is a pawl or ratchet lever pivoted in a slot, c' , in a weighted lever-arm, C' , one end of which turns on an axis, c , carried by the standard A^1 , while its opposite end rests on an enlargement or cam surface, d , formed on or affixed to the end of a lever-arm, D, pivoted in the upper end of the standard A^2 . d^1 is a recess formed in the under side of the lever-arm C,

for the reception of a friction-pulley, d^2 , for the purpose of lessening the friction between the arm C and the enlargement d . E is a retaining pawl or lever, the upper end of which engages with the rack b^5 of the lifting-bar B.

The pawls or levers C and E are retained in contact with the teeth of the bar B by means of springs F, except when the said pawls or levers are withdrawn by pressing the foot on the treadle g of a lever, G, the arm g^1 of which is connected to the pawl E by means of a chain or connection, g^2 .

The operation of the device is as follows: The lever D being in the position shown by Fig. 1, it is simply necessary (after placing the lifting-bar B under the load to be raised) to depress the lever-arm D, thereby causing its enlargement d to raise the end of the lever C' , thereby forcing the lever C upward, and raising the bar B one or more notches. The lever-arm D is then raised to the position shown by Fig. 1, and the operation repeated until the bar B has been raised to the desired height, where it will be retained by the lever E, until released by the withdrawal of the levers C E from contact with the teeth b^4 .

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

The combination, with a standard A^1 , provided with a vertical groove or guide, b , and plates or guides $b^1 b^2$, and a lifting-bar, B, having guides or grooves $b^3 b^4$ and teeth b^5 of a weighted pivoted lever-arm, C' , carrying a driving-lever, C, the said arm C' being operated by a cam or extension, d , from a lever-arm, D, the whole being constructed and operated substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

FREDERIC GRISCOM.

Witnesses:

PHINEAS WALKER,

PHINEAS W. WORSTALL.