

D. L. H. MITCHELL.

Lifting-Jacks.

No. 140,063.

Patented June 17, 1873.

Fig 1

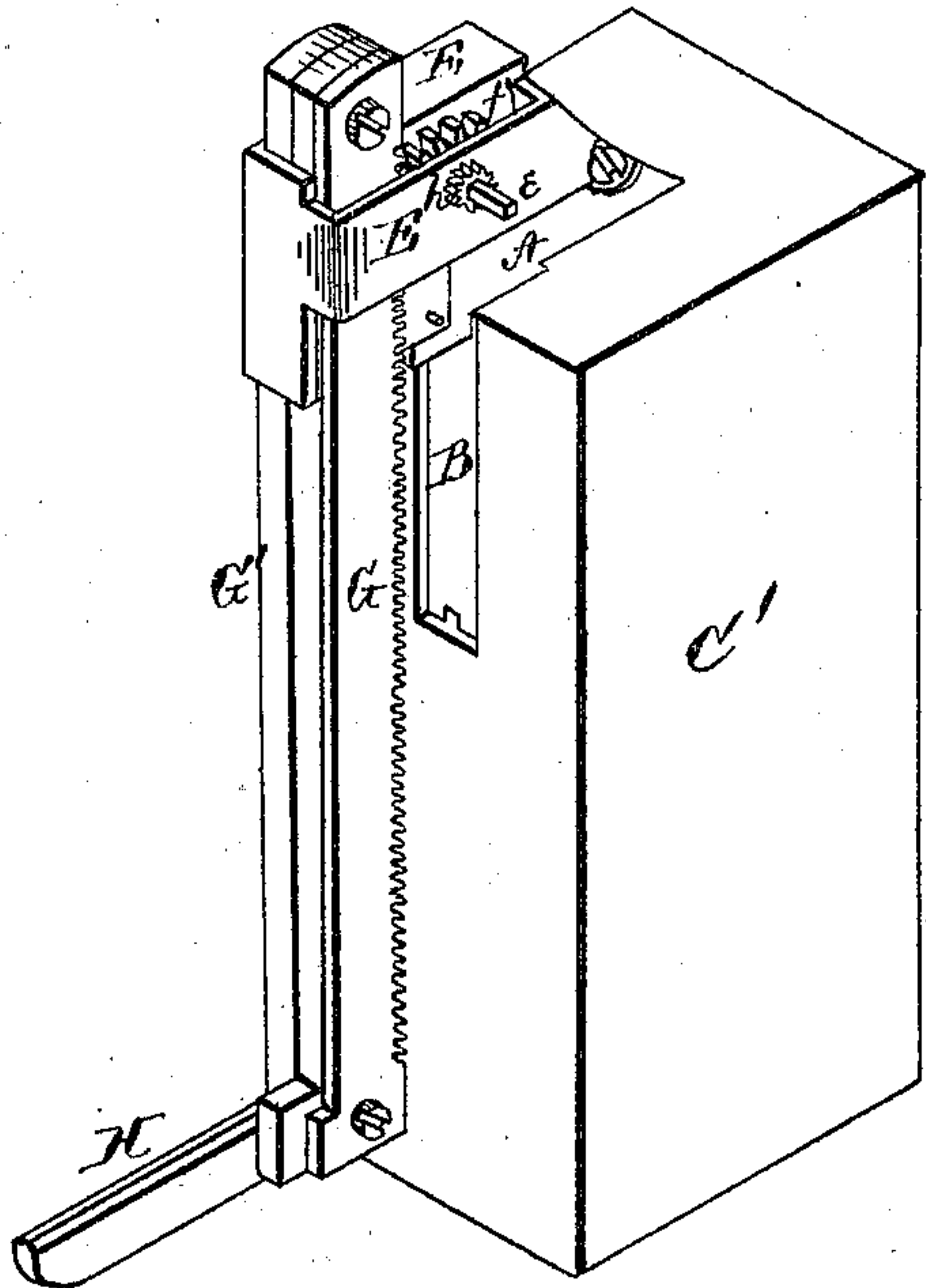


Fig 4

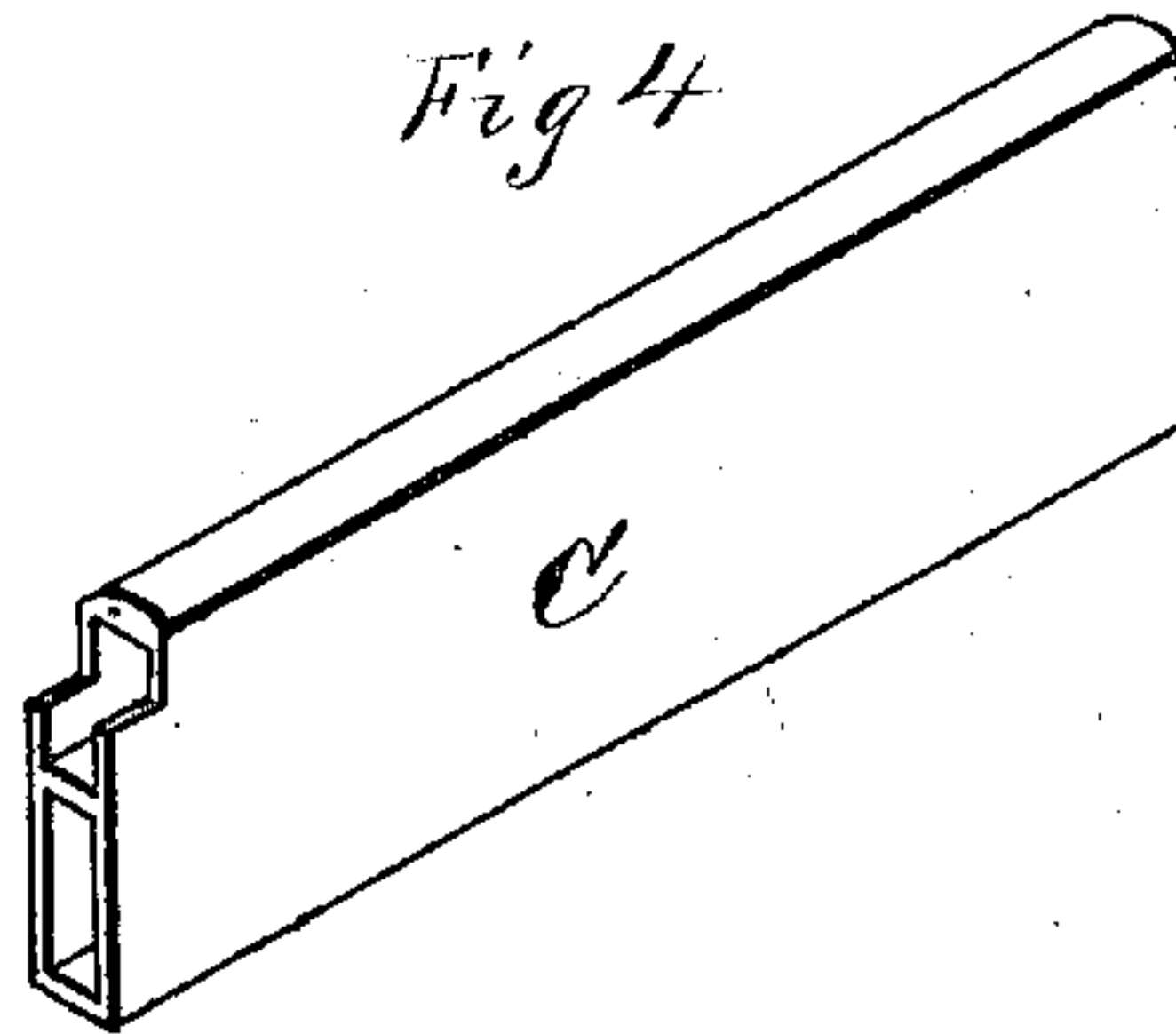


Fig 2

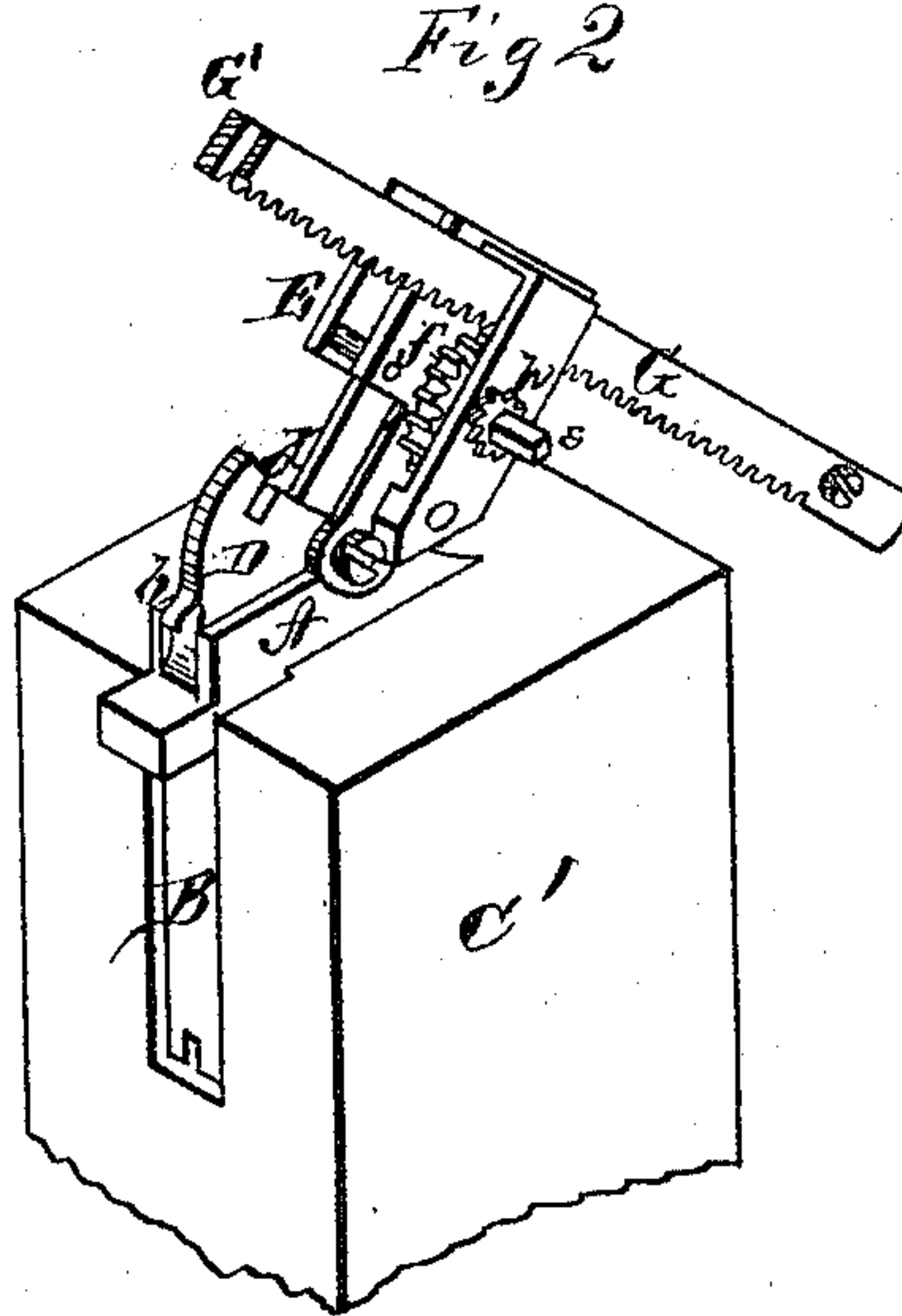
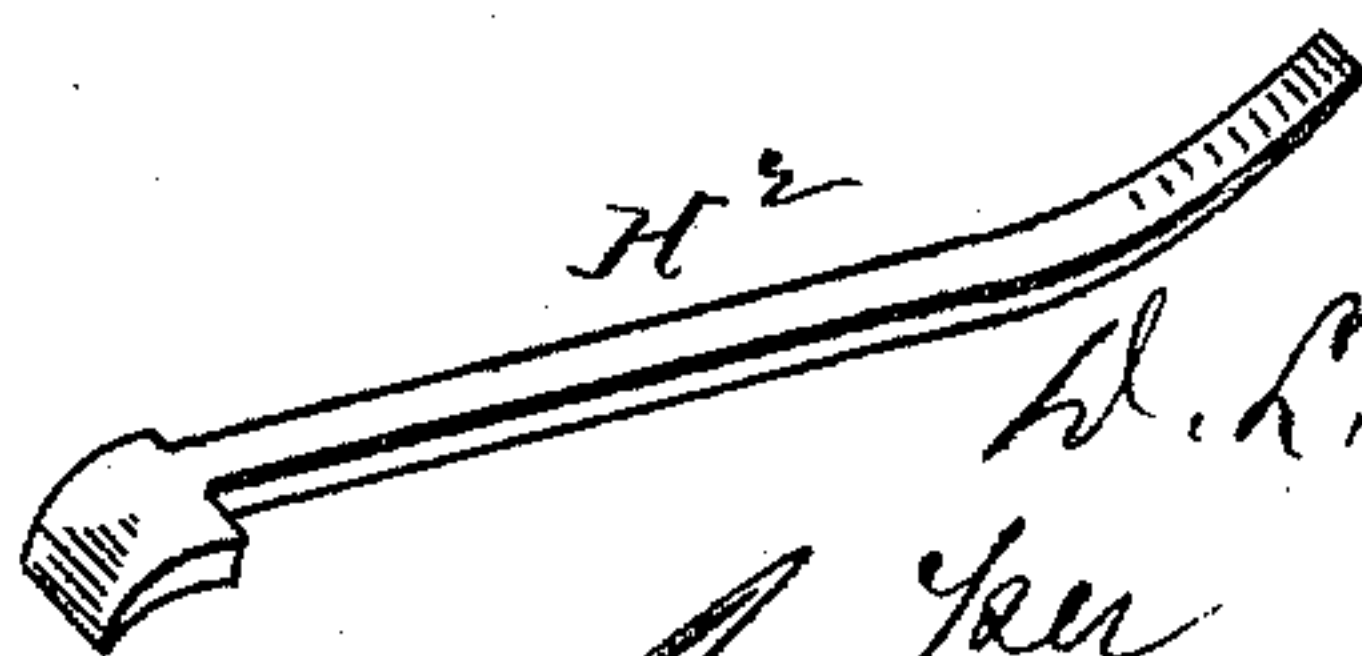
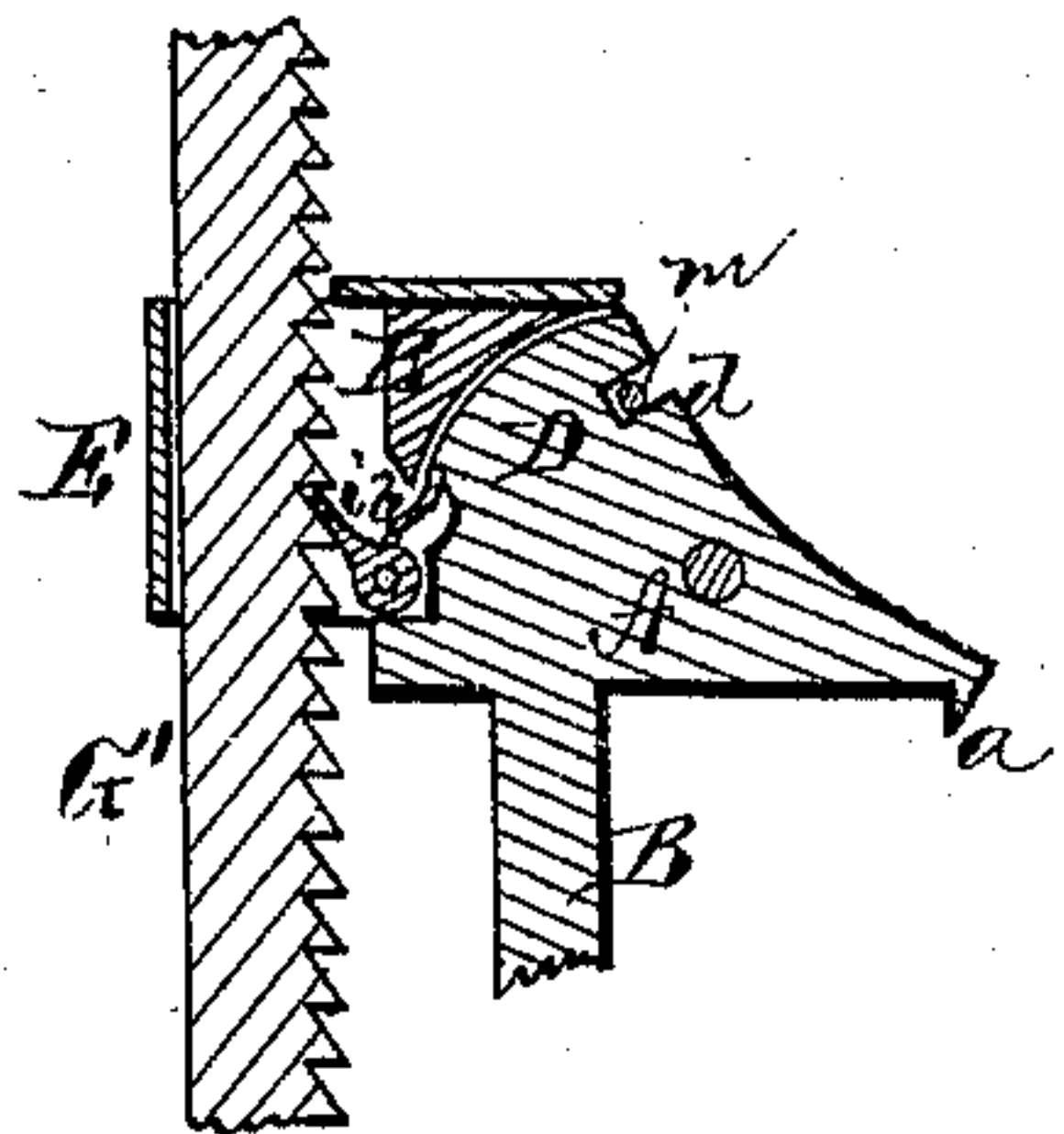


Fig 3



Witnesses:

Frank L. Ourand  
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per  
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# UNITED STATES PATENT OFFICE.

DANIEL L. H. MITCHELL, OF FOREST, MISSISSIPPI.

## IMPROVEMENT IN LIFTING-JACKS.

Specification forming part of Letters Patent No. 140,063, dated June 17, 1873; application filed May 14, 1873.

*To all whom it may concern:*

Be it known that I, DANIEL L. H. MITCHELL, of Forest, in the county of Scott and in the State of Mississippi, have invented certain new and useful Improvements in Lifting-Jacks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a lifting-jack for raising heavy timbers on railroads, raising track of railroads, bridges, buildings, and other purposes.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of my lifting-jack attached to a block, and in position for raising a weight. Fig. 2 is a similar view, showing the head thrown back. Fig. 3 is a section through the lifting-jack; and Fig. 4 is a perspective view of the pocket or staple on the side of the car in which the lifting-jack is to be placed when used on a car.

A represents a horizontal bar or bed plate, provided at its rear end with a tooth, *a*, and near its front end with a downward-projecting-arm, B, to fit in the pocket or staple C of a railroad car, or to be attached to a block, C', when used off the car. On the bar or bed plate A is a segment, D, projecting upward and provided with a spring, *b*, on the front, and with a slot, *d*, in the rear edge. E represents the head of the lifting-jack pivoted on the bar A and closing over the segment D. Through the front end of the head E passes a rack-bar, G, and a toothed bar, G', connected

together at the ends, and having a foot, H, attached to their lower ends, which foot projects forward, and upon which the weight to be raised is placed. *e* represents an arbor passing horizontally through the head E, and having upon it a cog-wheel, *f*, which meshes with the rack-bar G. This arbor *e* also carries a ratchet-wheel, *h*, on the outside of the head. In the head E is also pivoted a pawl, *i*, which, when the head is closed down over the segment D, is forced by the spring *b* on said segment against the toothed bar G'. H<sup>1</sup> and H<sup>2</sup> represent two levers by which the jack is operated, the former on the arbor *e* or ratchet-wheel *h*, and the other on the toothed bar G.

When the weight is raised to the proper level it is easily thrown upon the car or elsewhere by reversing or throwing the head back. When the head E is thrown down over the segment D a pin, *m*, in said head enters the slot *d* in the segment to assist in holding the same steady.

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

1. The bar or bed plate A, constructed as and for the purpose set forth.
2. The head E, with its gearing and ratchet-bars hinged to the bed-plate A, as and for the purpose set forth.
3. The combination of the bed-plate and its arm with standard C, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of April, 1873.

DANIEL L. H. MITCHELL.

Witnesses:

T. B. GRAHAM,  
C. H. PINKSTON.