

T. M. BRINTNALL.
RECLINING-CHAIR.

Patented June 13, 1876.

No. 178,591.

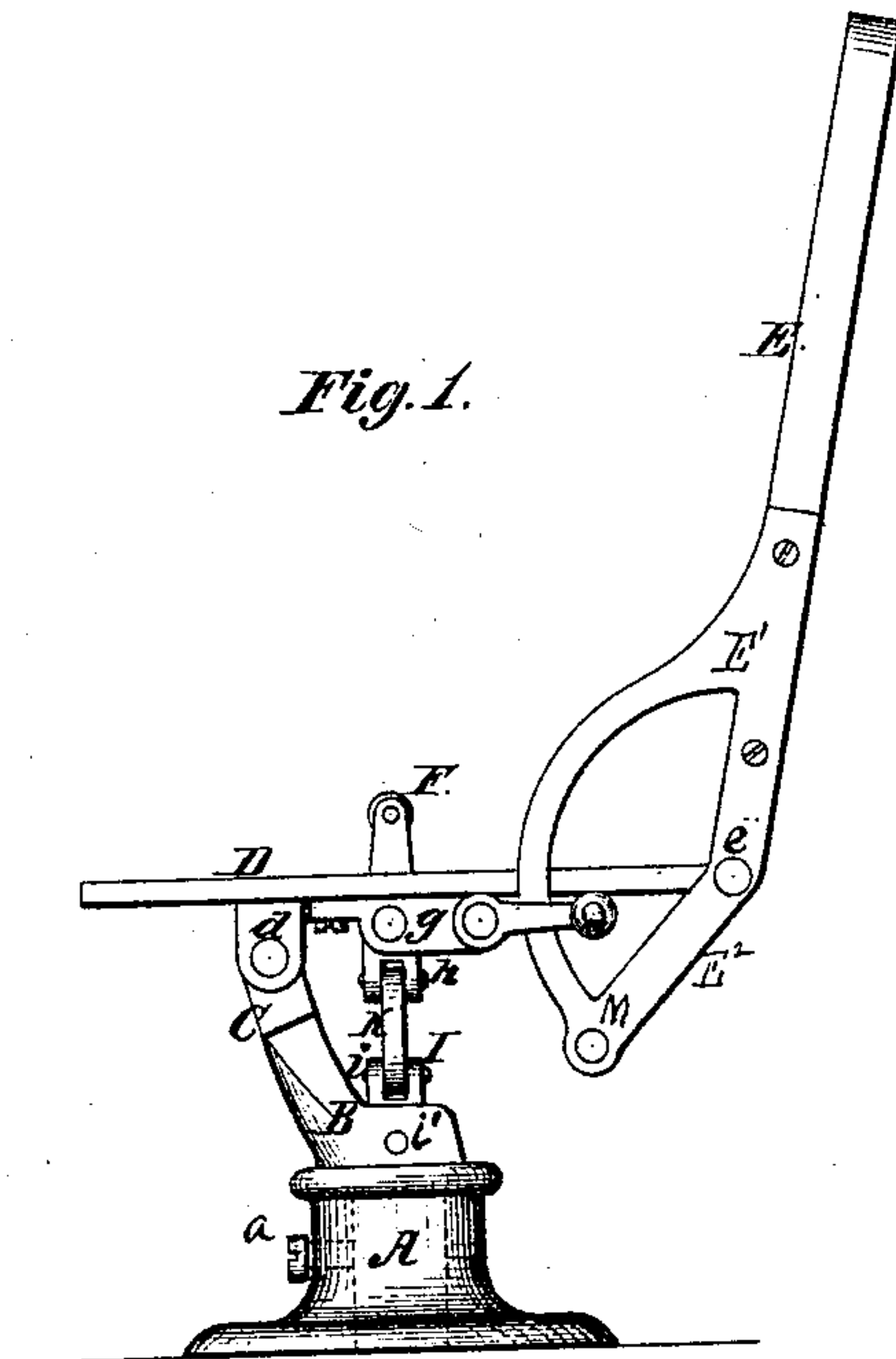


Fig. 2.

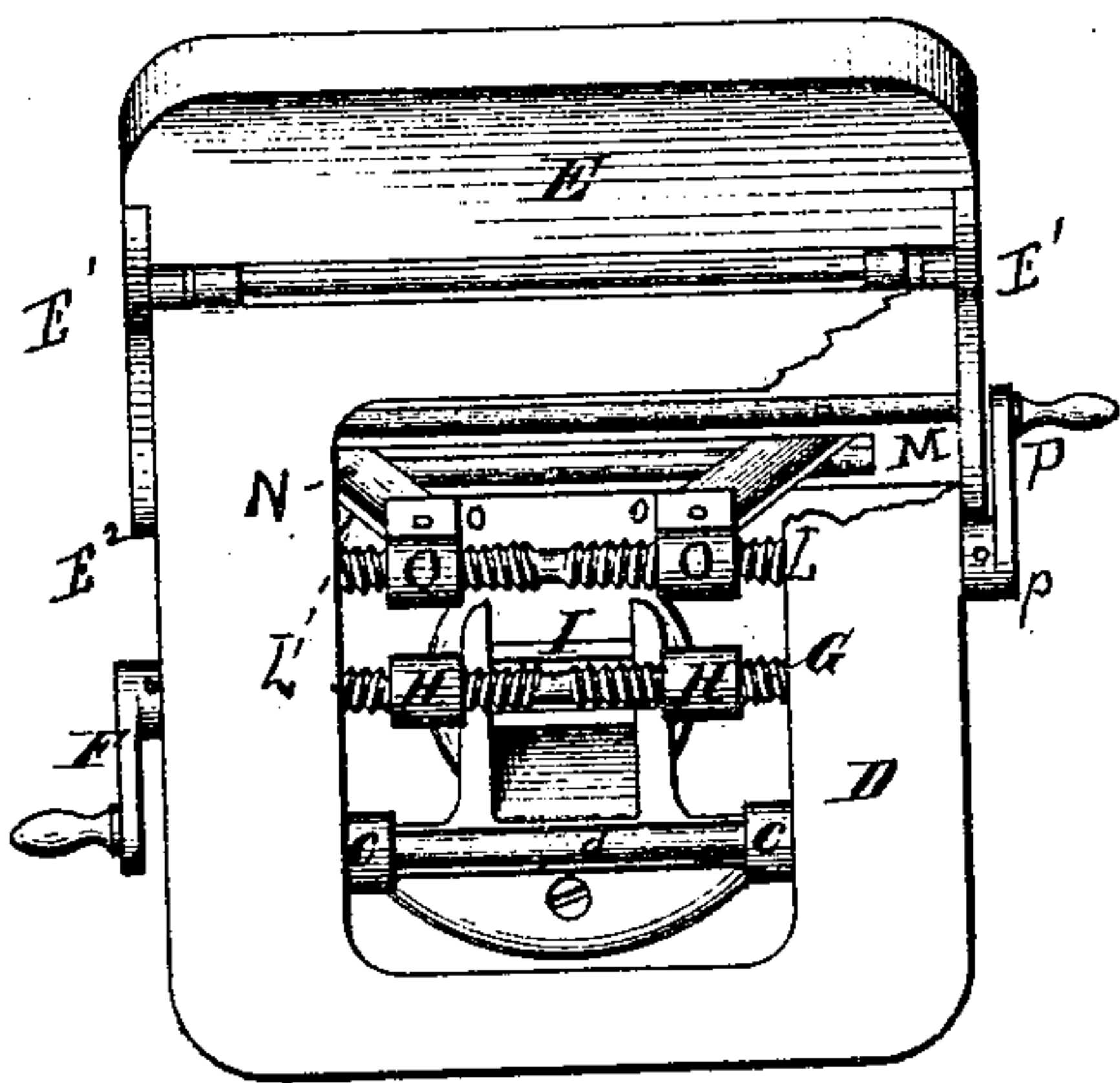
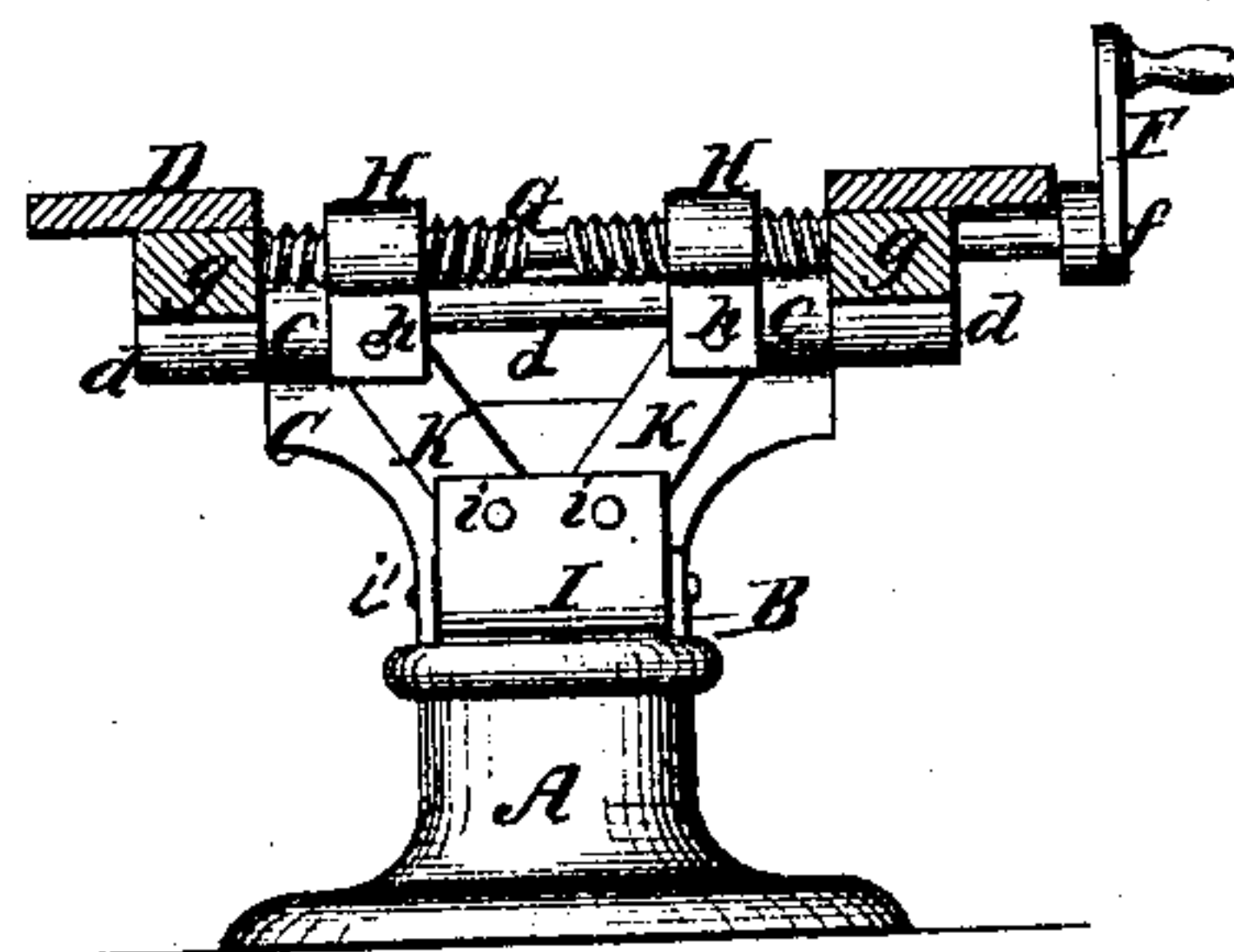


Fig. 3.



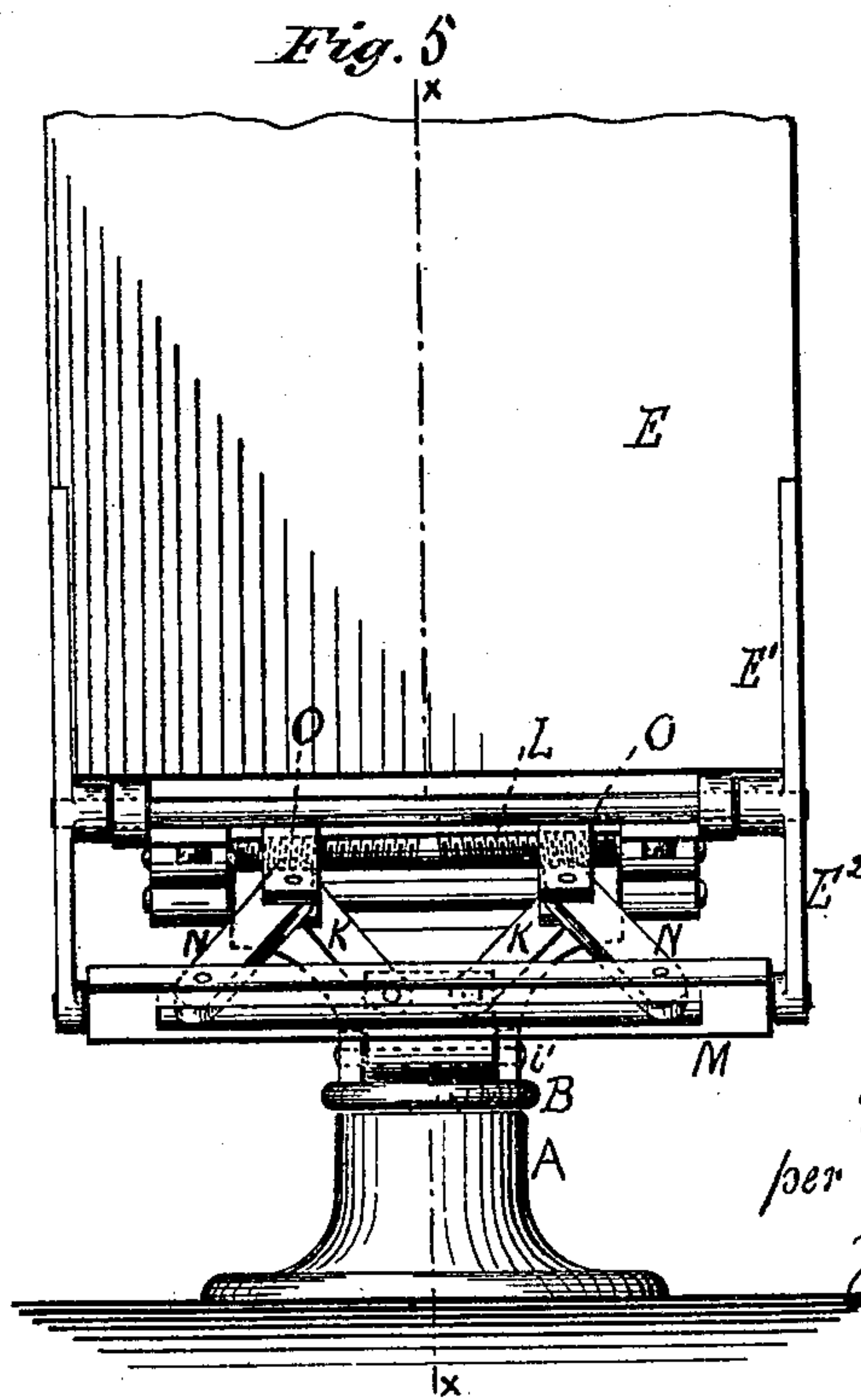
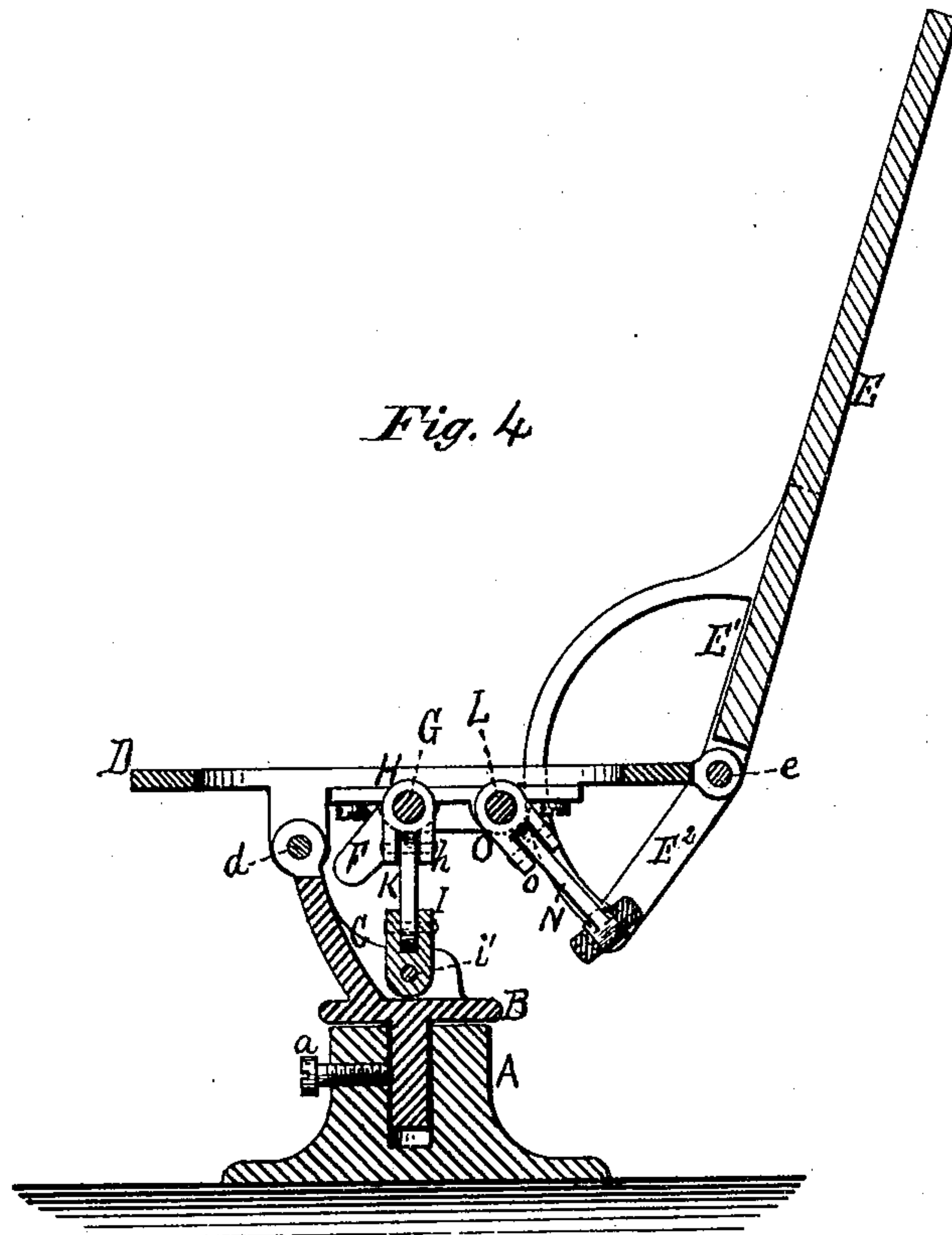
Witnesses.
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Witnesses:
Edwin James.
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UNITED STATES PATENT OFFICE.

THOMAS M. BRINTNALL, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF HIS RIGHT TO JOHN GOODCHILD, OF SAME PLACE.

IMPROVEMENT IN RECLINING-CHAIRS.

Specification forming part of Letters Patent No. 178,591, dated June 13, 1876; application filed March 16, 1876.

To all whom it may concern:

Be it known that I, THOMAS M. BRINTNALL, of the city and State of New York, have invented certain Improvements in Reclining-Chairs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a side view of my invention. Fig. 2 is a top-plan view of the same, with a portion broken away to show some of the parts more clearly. Fig. 3 is a cross-section looking toward the front, the back being removed. Fig. 4 is a longitudinal sectional view on the line *x x*, Fig. 5. Fig. 5 is a rear elevation of my improved reclining-chair.

The nature of my invention consists in operating the seat and back of a reclining-chair, when said features are secured by pivot-bearings or keyed on axial shafts, through a simple and practical combination of mechanism, which consists of right-and-left-hand screws, one operating each shank-nut, and pivoted levers or half-toggles. The screws are journaled in suitable bearings formed on or connected with the seat, while the nuts fit over the screws, their female threads meshing with the threads of the screw, so as to be operated simultaneously thereby, and caused to travel to and fro, as occasion requires. To the shanks of the nuts are secured pivoted levers or half-toggles, so connected with the seat and back as to elevate or lower the same, as, through the action of their respective screws and nuts, the toggle-arms are drawn together or extended. Thus the seat and back are operated independently of each other, and their position or inclination changed or shifted at pleasure, simply through the revolution of the screw, and its action through the nuts and pivoted levers.

The construction and operation of my invention are as follows: A is the pedestal, which is cast or otherwise formed so as to provide a socket or seat, in which enters and is secured the post of the bearing B C, that supports the seat. This support is so seated in the pedestal as to permit of the chair being freely revolved; or, if desired, it can be fastened in a

stationary manner simply by tightening the screw *a*. The form in which this support B C is cast or otherwise manufactured is clearly shown in Fig. 1. At its upper surface is a stirrup-bearing, C, in the vertical walls of which is journaled the revolving shaft *d*, to which is keyed, by suitable bearings, the seat D. In the lower bearing B of the support, by means of a bolt, *i*, is fastened the vertical slotted bearing I, in which are pivoted so as to allow of their free horizontal movement, as extended or drawn together, the levers or half-toggles K K. On the under surface of the seat D are securely bolted bearings *g*, in which are journaled the right-and-left-hand screws G L—the first to operate the seat D, the other to operate the back E. On the opposite threads of the screw G are secured the shank-nuts H H, the female threads of which fit over and mesh with the threads of the screw, and through its revolution they are moved toward each other or in the opposite direction, as occasion requires. To the bearings *h* of the shank-nuts H (and which bearings, if desired, may be slotted) are secured, so as to provide pivot-joints, the upper sections of the levers or half-toggles K K, which, at their opposite ends, are pivoted in the slotted plate I. To the projecting shank of the screw G is secured, through an eye, *f*, the crank-handle F, by means of which the screw is readily rotated. The back E is secured by means of an axial shaft, *e*, in suitable bearings at the rear of the seat; or the shaft *e* may be dispensed with, as may also the shaft *d*, and the back and seat each secured by pivot-joints directly to their bearing. The back is provided with half-arms E¹, which terminate in projections E², at the lower ends of which is secured a slotted cross-bar, M, as clearly shown in Fig. 2, and in which the levers or half-toggles N N have their lower pivot-bearings. The upper pivot-bearings of these levers N N are on the shanks *o* of the nuts O O, which nuts fit on the screw L, and are operated thereby, precisely as the shank-nuts H H fit on and are operated by the screw G, and the connection of the shank-screws with the toggle-arms in both instances is precisely similar.

This slotted cross-bar M, if desired, may be

dispensed with, and the levers N N may have their lower pivot-connections made directly with the lower surface of the projections E² of the back. To the extended shank of the screw L is attached, by means of an eye, p, the crank-handle P, by which the screw L is freely operated to lift or lower the back as occasion requires.

From the foregoing full description the operation of the mechanism with which I change at pleasure the position or inclination of the seat D and back E can readily be understood. In Fig. 1 the chair is represented in its upright form—that is, the seat is resting in the usual horizontal position, and the back at an ordinary angle of inclination. To change the position of the seat the screw G is turned, through the crank F. To move it to an angle which leaves the forward portion of the seat lower than its rear the screw is turned

toward the front until the desired inclination is reached. If in the opposite direction, it is readily accomplished simply by revolving the screw, turning the crank in the other direction, and so with the back.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

A reclining-chair provided with right-and-left-hand screws, shank-nuts, and pivoted levers or half-toggles, substantially as set forth, whereby the seat or back, or both, can be operated, substantially as described, and for the purpose specified.

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

THOMAS M. BRINTNALL.

Witnesses:

EDWIN JAMES,

J. E. F. HOLMEAD.