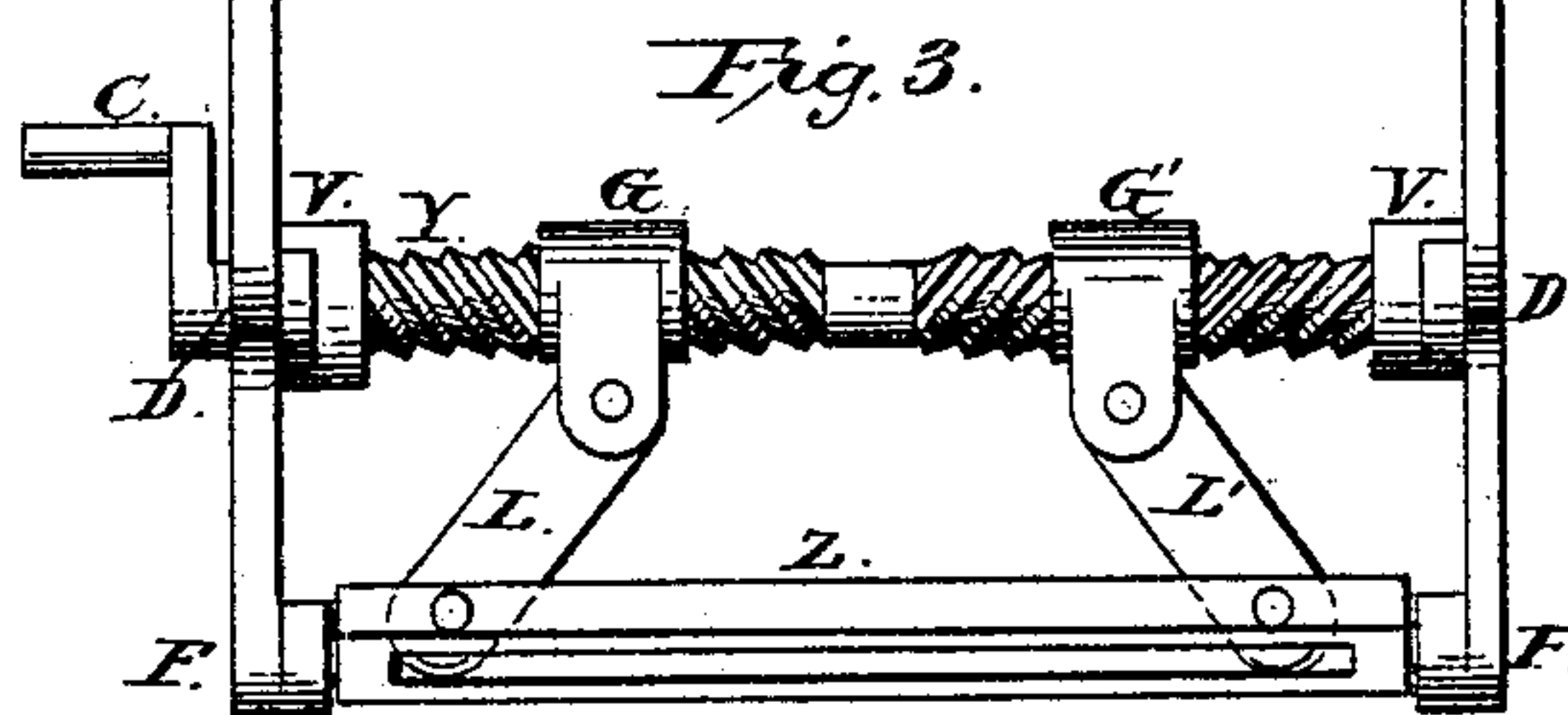
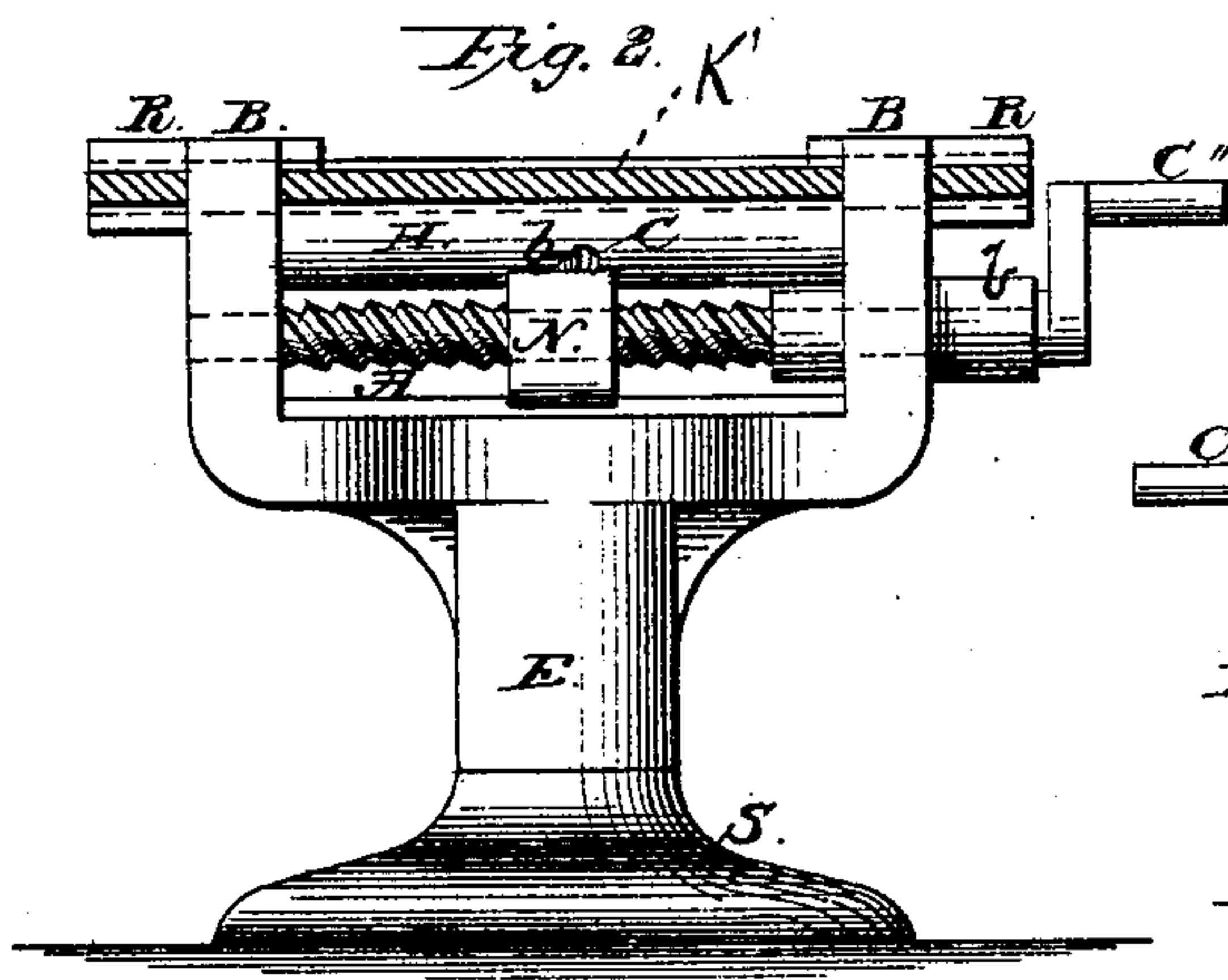
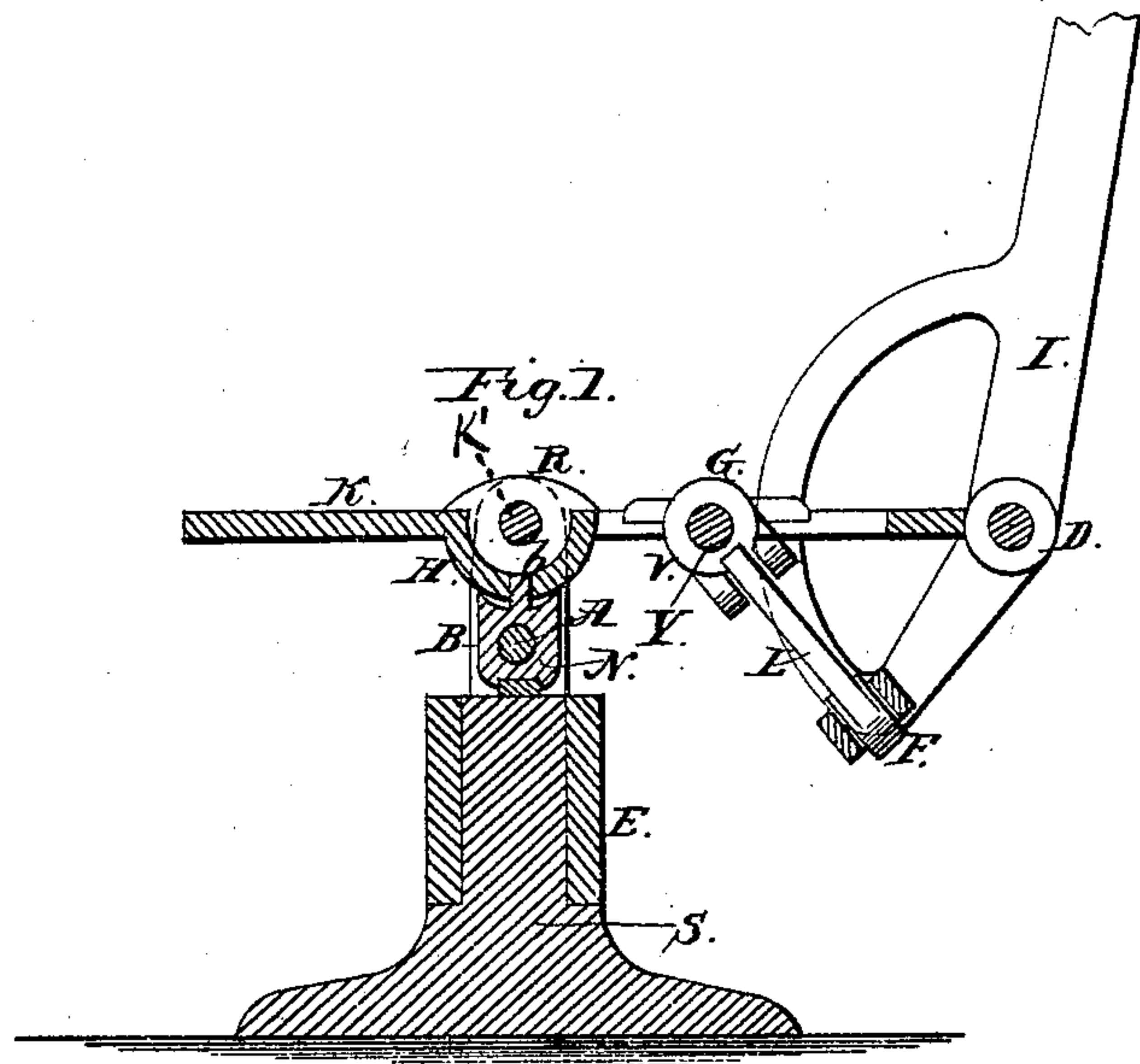


T. M. BRINTNALL.
RECLINING CHAIR.

No. 178,721.

Patented June 13, 1876.



Witnesses:

Joe H. Graham.
Myardell.

Inventor:

Thomas M. Brintnall

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. 178,721, dated June 13, 1876; application filed
February 26, 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 longitudinal sectional view. Fig. 2 is a front view, parts being removed. Fig. 3 is a rear view, parts being removed.

The object of my invention is to provide a simple and practicable means of imparting such a movement to the seat of a reclining or other chair, the seat being secured by suitable pivot-bearings, or on an axle-shaft, as to permit of its being moved from the ordinary level or horizontal position to that of an incline, the inclination being such that either the front or rear of the seat is raised.

To accomplish this, which constitutes the nature of my invention, I provide, through suitable mechanical means on the under surface and at the front or rear of the seat, and immediately beneath its axle-shaft, on the line of the center of its pivot-joint connections, a spiral bearing, in which enters, so as to work freely, the projecting pin or shoulder of a traveling nut, which fits over and is moved to and fro by means of an ordinary screw, which is secured in suitable journals provided in the support of the seat. The position at which the seat shall rest and be retained is controlled by the position the pin or shoulder of the nut shall occupy in the spiral bearing of the seat; and consequently any movement of the nut in a horizontal direction through the action of the screw, be it either to the right or left, will rotate the seat, and either lower its front portion and elevate its rear, or vice versa, leaving the same at the desired angle of inclination.

The construction and operation of my invention are as follows:

S is a pedestal, which is cast with a central annular shoulder or stud, over which is seated the cylindrical socket-bearing of the support E, as is shown in Fig. 1.

This bearing may be left so as to permit of

the chair being rotated, or it may be fastened by any ordinary screw or other attachment. (Not necessary to show in the drawing.)

This support at its upper section terminates in a broad stirrup-bearing, in the vertical arms B B of which is supported an axle-shaft, K', and on which the bearings of the seat K are keyed or otherwise permanently secured; or this axle-shaft may be dispensed with, and the seat connected with the uprights B B by any suitable pivot-connections. In these uprights B B, and below the points at which the seat has its bearings, are other bearings b b, in which are journaled, so as to allow of its free rotation, the unthreaded sections of a screw, A. This screw A is readily rotated in either direction by means of a crank-handle, C". On this screw is fitted and operated one or more traveling nuts, N N. Only one of such nuts is shown in the drawing, and is sufficient to illustrate the principle of the invention. From the upper surface of the nut N extends or projects a pin or shoulder, b, as clearly shown in Fig. 2, which is designed to engage with the spiral bearing of the seat through which the latter is rotated, as hereinafter described, so as to permit the change of its position or the inclination at which it shall rest at the pleasure of the occupant.

Ordinary mechanical skill will readily suggest different means of providing the spiral bearing, in connection with which this projecting pin or shoulder is designed to act, and therefore I wish it understood that I do not desire to restrict my invention by any means to the one illustrated on the drawing, and which I will now proceed to describe.

To form the style of spiral bearing shown, I cast or otherwise so form or manufacture the seat as to leave a cylindrical protuberance, H, which projects below the plane of the under surface of the seat, and through which is cut or otherwise formed a slot, c, which extends in an angular direction, and in which enters and works the projecting pin or shoulder b of the traveling nut N.

When the spiral bearing is provided in connection with a cylindrical protuberance, H, the head of the nut may be advantageously concaved, which provides a seat for the cylin-

dricul section, H, and which steadies the same as the seat is rocked either to or fro, to alter its position or the inclination at which it shall rest.

As I have now described so much of the mechanism illustrated in the accompanying drawing as is designed to constitute the distinctive subject-matter of the present application, I will briefly show its operation before describing the mechanism shown as operating the back I, which last constitutes no part of the invention embraced in the present application, the same being fully described and distinctively claimed in an application for Letters Patent filed by me in the United States Patent Office, March 16, 1876:

I will presume the seat to be at rest, occupying an ordinary level or horizontal position, and such as is shown in Fig. 1. To shift the position of the seat so as to incline it either toward the front or rear, it is simply necessary to turn the crank C'. If toward the front, turn the crank in that direction; if toward the rear, turn the crank toward the rear. The revolution of the crank imparts a like movement to the screw A, which imparts motion to the nut N which travels thereon, and which, through its pin or shoulder *b* bearing against one or the other of the walls of the slot C, as the case may be, imparts a partial rotation to the seat, moving the same in the desired direction, and to the position at which it is de-

signed to temporarily rest. The seat, when desired, is returned simply through the reverse movement of the crank. I is the back, and is secured by means of suitable bearings to an axle-shaft, D. Y is a right and left hand screw, and is journaled in suitable bearings V on the seat. On this screw work shank-nuts G G', to which are pivoted levers or half-toggles L L', which, at their lower end, are pivoted in the slotted section of the cross-bar Z, secured to the lower lateral projections F of the back I. The screw Y is operated by a crank-handle, C.

The mechanism just described, being identical with that claimed in my application before referred to, further or minute reference to the same here is unnecessary.

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

In combination with a chair-seat, K, secured as described, and having on its under surface a spiral bearing, *c*, a screw, A, and traveling-nut N, having a projecting pin or shoulder, *b*, the whole constructed and arranged to operate substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of February, 1876.

THOMAS M. BRINTNALL.

Witnesses:

JOHN COSTELLO,

WILLIAM H. COSTELLO.