

No. 740,825.

PATENTED OCT. 6, 1903.

O. C. DORNEY.
CHAIR.

APPLICATION FILED OCT. 25, 1901. RENEWED MAR. 23, 1903.

NO MODEL.

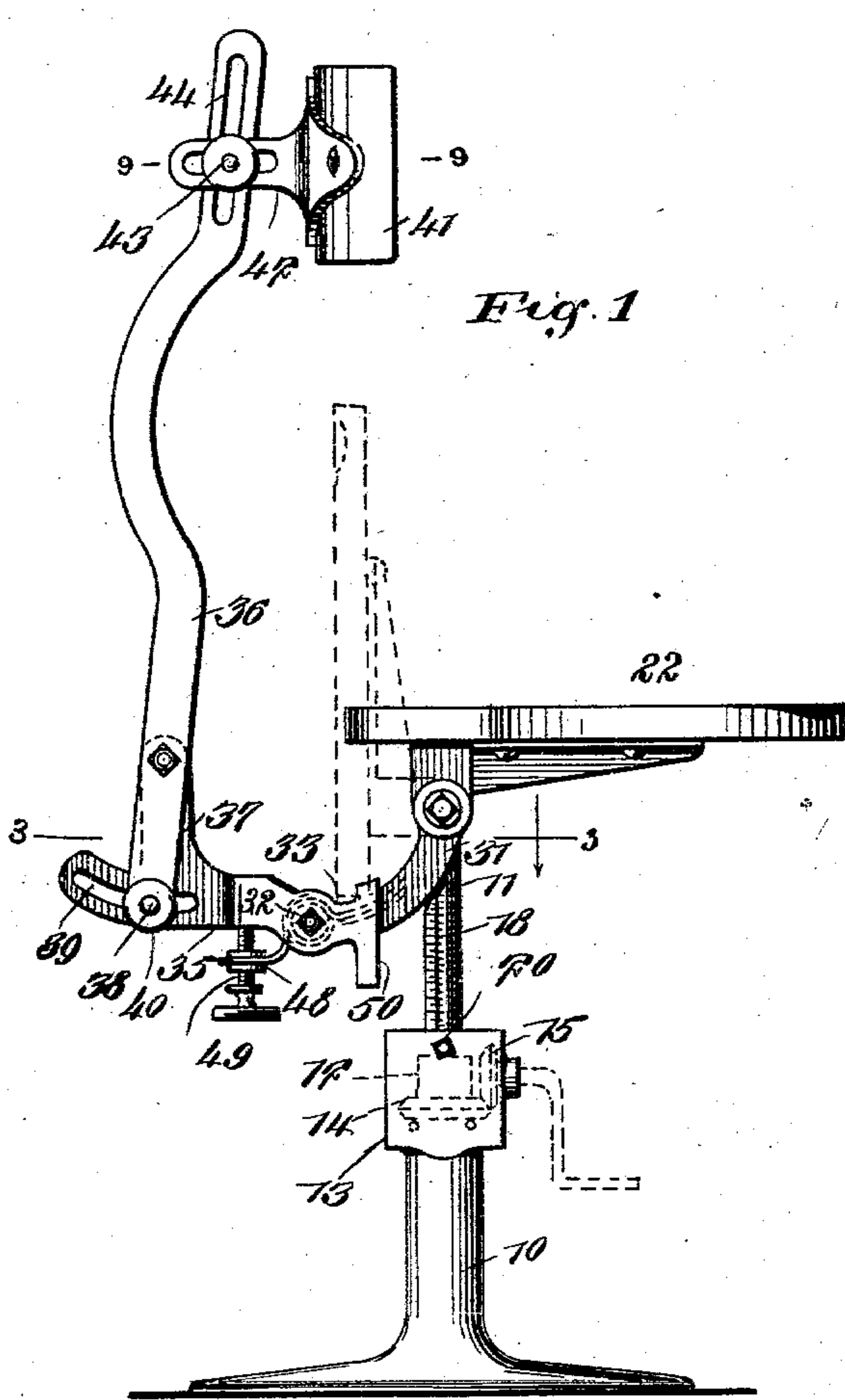


Fig. 1

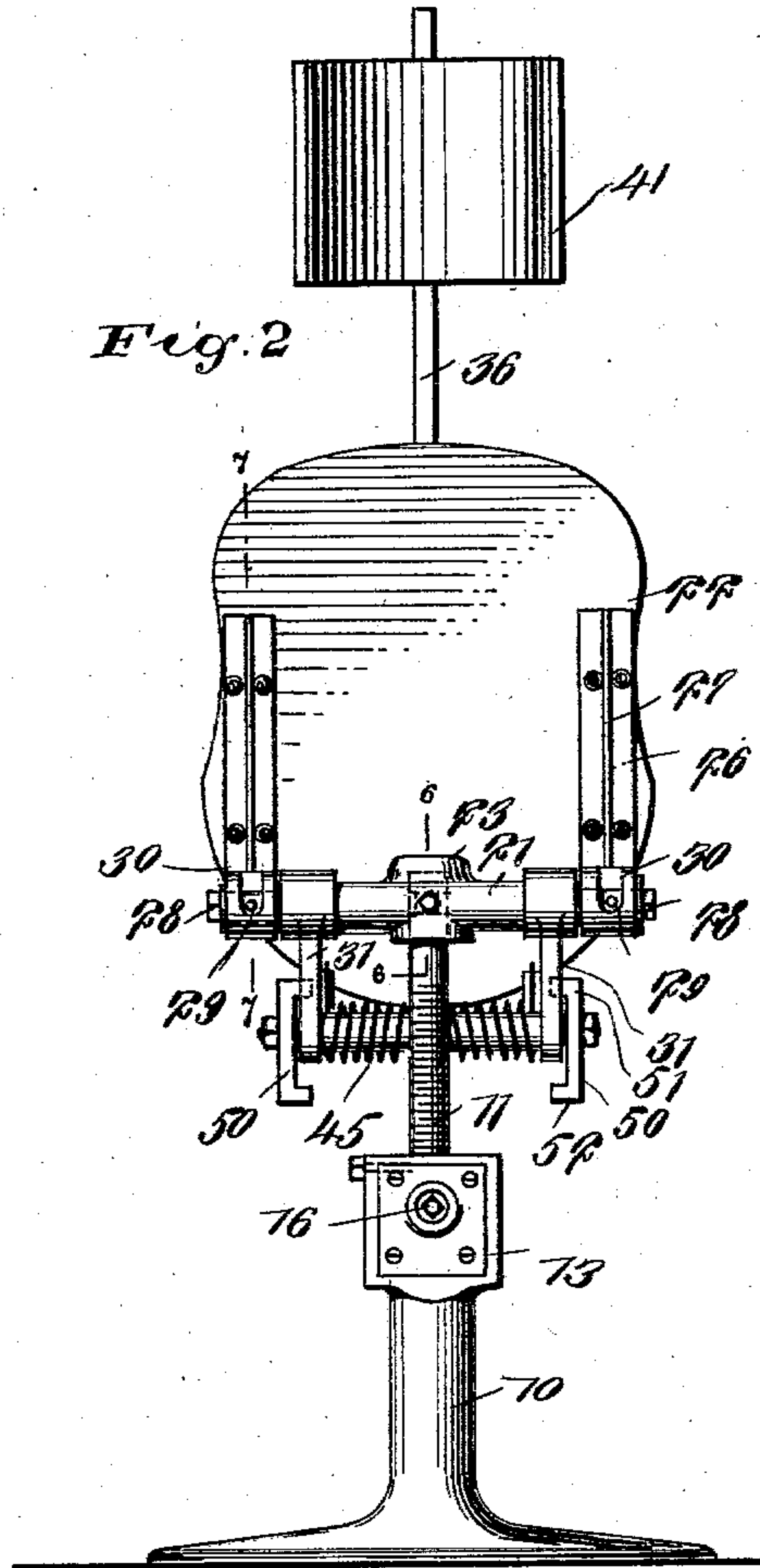


Fig. 2

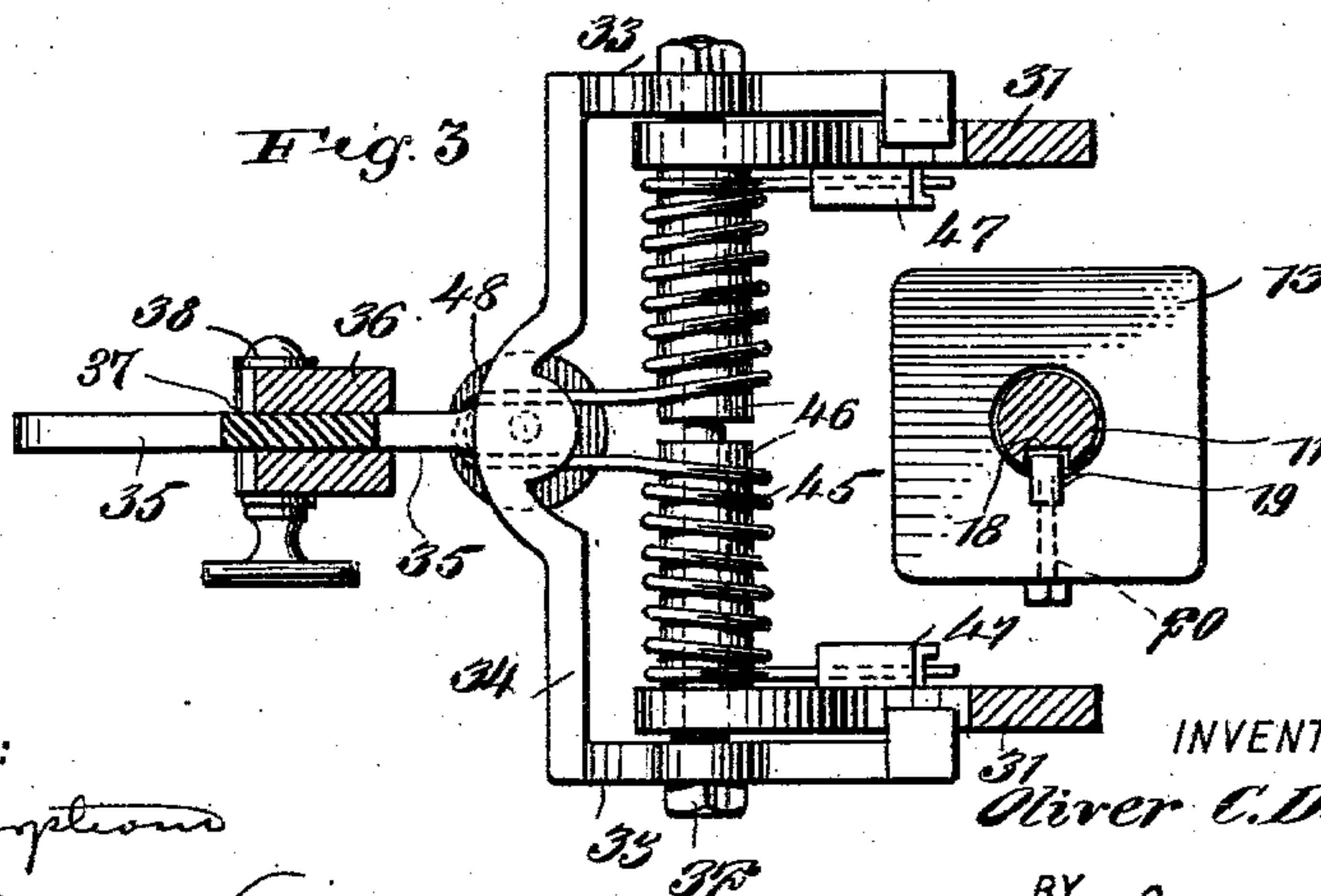


Fig. 3

WITNESSES:

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OLIVER CHARLES DORNEY, OF ALLENTOWN, PENNSYLVANIA.

CHAIR.

SPECIFICATION forming part of Letters Patent No. 740,825, dated October 6, 1903.

Application filed October 25, 1901. Renewed March 23, 1903. Serial No. 149,206. (No model.)

To all whom it may concern:

Be it known that I, OLIVER CHARLES DORNEY, a citizen of the United States, and a resident of Allentown, in the county of Lehigh and State of Pennsylvania, have invented a new and Improved Chair, of which the following is a full, clear, and exact description.

This invention relates to improvements in chairs, particularly adapted for use in schools, theaters, public halls, and the like; and the object is to provide a chair of simple construction, having no parts liable to get out of order or break and so arranged that the seat and back may be easily and quickly adjusted as desired.

I will describe a chair embodying my invention and then point out the novel features in the appended claims.

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 figures.

Figure 1 is a side elevation of a chair embodying my invention. Fig. 2 is a front view thereof with the seat turned up. Fig. 3 is a section on the line 3 3 of Fig. 1.

Referring to the drawings, 10 designates the tubular base-post, which may be secured to a floor by means of bolts or other suitable devices. Adjustable vertically in this post 10 is the seat-carrying standard 11. This standard 11 is made in the form of a screw and engages in a sleeve or nut 12, arranged in a boxing 13 on the upper end of the post 10. The lower end of the sleeve or nut 12 is provided with a miter-gear 14, engaging with a miter-pinion 15, the shaft 16 of which has a bearing in a wall of the casing, and the outer end of this shaft is made angular in cross-section to receive a key for the purpose of rotating it. Obviously by rotating the pinion 15 the standard 11 may be raised or lowered. To insure this movement, however, the standard must be held from rotary motion. Therefore I have provided it with a longitudinal channel 18, in which a block 19 engages. This block 19 has swivel connection with a bolt 20, movable in the upper portion of the casing 13. Swiveled on the upper end of the standard 11 is a cross-head 21, supporting the seat 22. This cross-head 21 is provided with a socket portion 23, into which the upper end

of the standard 11 passes, and the end of the standard within the socket is provided with an annular channel 24, in which the end of a screw-bolt 25 engages.

The seat 22 is secured to castings or arms 26, which for the purpose of strength are provided on the under side with longitudinal ribs 27. These castings or arms are mounted to swing on reduced portions 28 of the cross-head 21. Lugs 29, attached to the reduced portions 28, pass into annularly-disposed slots 30 in the portions of the arms 26 that surround the cross-head. The lower end walls of these slots 30 by engaging with the lugs 29 will prevent the seat from swinging too far rearward when moved upward, as indicated in dotted lines in Fig. 1 and in full lines in Fig. 2, and the upper end walls of said slot by engaging with the lugs will prevent the seat from swinging too far downward.

Extended downward and rearward from the cross-head 21 are arms 31, and supported at the rear ends of these arms 31 is a rod 32. On this rod 32 is mounted to swing a back-supporting frame comprising the arms 33, connected at the rear end by a cross-bar 34, from which an arm 35 extends. The back-post 36 is pivotally connected to the upwardly-extended portion 37 of the arm 35. As here shown, the back-post 36 is bifurcated at its lower end, so as to engage on opposite sides of the arm, and it is secured in its adjusted position by means of a bolt 38, passing through the bifurcated portions of the post and through an arc-slot 39 in said arm 35. The bolt is engaged at one end by a set-nut 40.

Attached to the upper end of the back-post is a curved back-rest 41. This back-rest is adjustable toward and from the back-post vertically thereof and as to its angle with relation to the back-post. To cause these several adjustments, arms 42 are attached to the back-rest and are longitudinally slotted to receive a fastening-bolt 43, that passes through said slots and through a vertical slot 44 in the upper end of the back-post. It will be noted that the arms 42 engage with the back-post at opposite sides. By this construction the several adjustments above mentioned, it will be readily seen, may be made.

For the ease and comfort of a person sitting in the chair the back is designed to have a

yielding motion with relation to the seat. For this purpose I provide a spring 45, which has its body portion coiled in opposite directions around sleeves 46 on the rod 32, and the extreme ends of these coiled portions are engaged with blocks 47, attached to the arms 31, while the central portion of the spring is extended rearward and engages in an annular channel formed in an interiorly-threaded block 48, engaged by a set-screw 49, the upper end of said set-screw 49 being engaged with the arm 35 at its junction with the cross-bar 34. By manipulating this screw 49 the tension of the spring may be regulated.

The forward ends of the arms 33 are provided with vertically-disposed portions 50, which at the upper ends are turned inward, as at 51, and at the lower ends are turned inward, as at 52, these inwardly-turned portions being designed to engage, respectively, with the upper and lower portions of the arms 31 to limit the swinging movement of the back-supporting frame relatively to the said arms. The standard 11 may be held in its adjusted position or locked by forcing the block 19 tightly into the channel 18.

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

1. A chair comprising a standard, a cross-head on the standard, arms extended rearward from the cross-head, a rod connecting the ends of the arms, a back-supporting frame mounted to swing on the rod, a back adjustable on the frame, sleeves on the rod, a spring having its body portion coiled in opposite directions around said sleeves, and an adjusting connection between the spring and frame, substantially as specified.

2. A chair comprising a standard, a cross-head on the standard, arms extended rearward from the cross-head, a back-supporting frame supported by the arms and arranged to swing, stops on said frame for engaging the upper and lower sides of the arms, the said frame consisting of arms having connection at the rear ends, an arm extended from the connection and provided with a slot, an upwardly-extended portion on said last-named arm, a back-post pivoted on said upwardly-extended portion, and a fastening-bolt passing through said slot and back-post, substantially as specified.

3. A chair, comprising a standard, a cross-head on the standard, arms extended rearward from said cross-head, a rod supported by said arms, a back-frame having arms mounted to swing on said rod, the said frame-arms having at their forward ends inward projections for engaging against the upper or lower sides of the first-named arms, a slotted arm extended rearward from the said back-frame, a back supported on said slotted arm, a bolt passing through the slot and through a portion of the back for holding the back as adjusted, a spring surrounding said rod and having its free ends engaged with the first-named arms, and an adjusting-screw with which the central portion of said spring engages, substantially as specified.

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

OLIVER CHARLES DORNEY.

Witnesses:

EDWARD RUHE,
WILLIAM F. RUHE.