

No. 751,050.

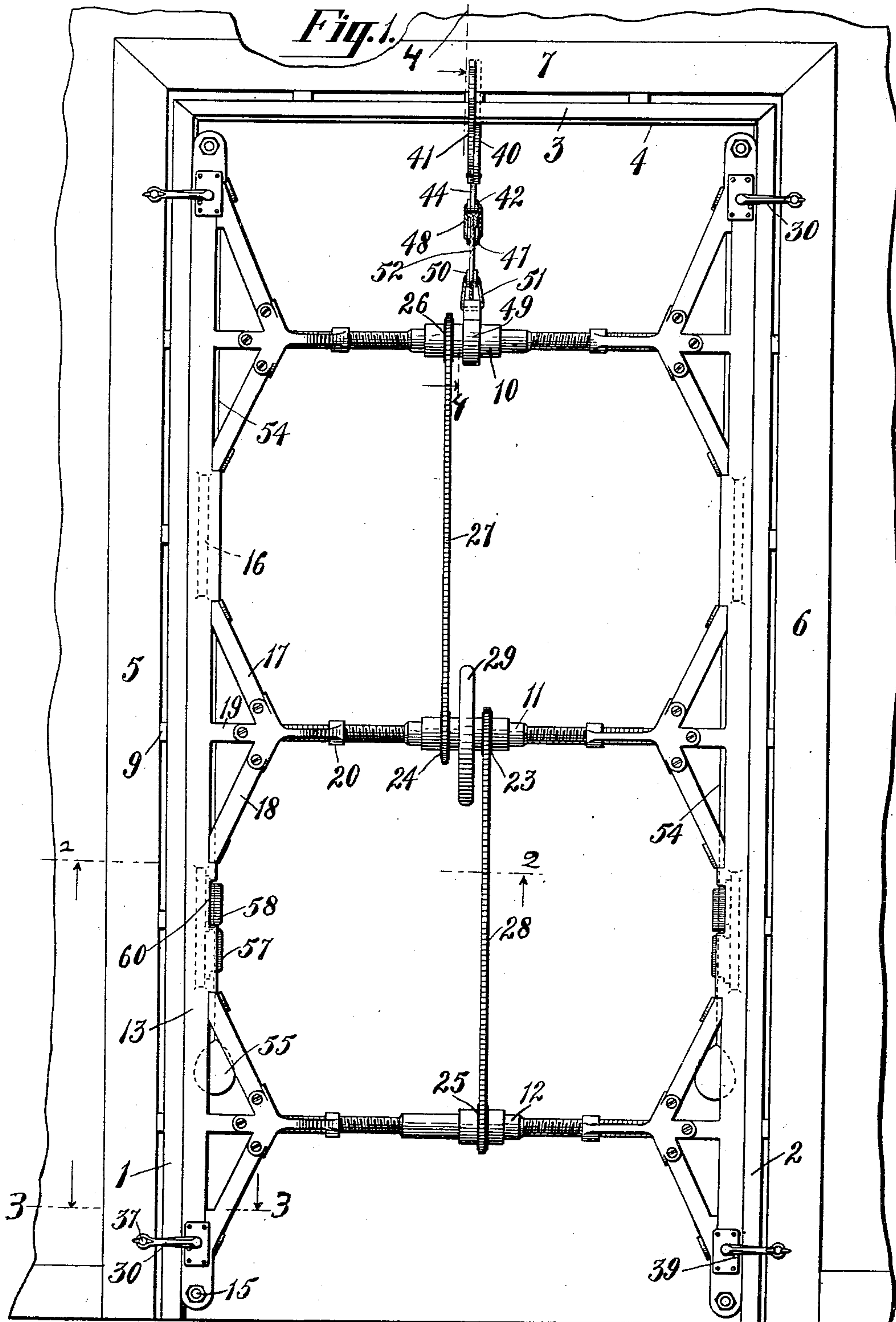
PATENTED FEB. 2, 1904.

C. L. BRONK.
DOOR JAMB SETTING MACHINE.

APPLICATION FILED MAY 6, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:
F. B. Hackenberg
Henry J. Green

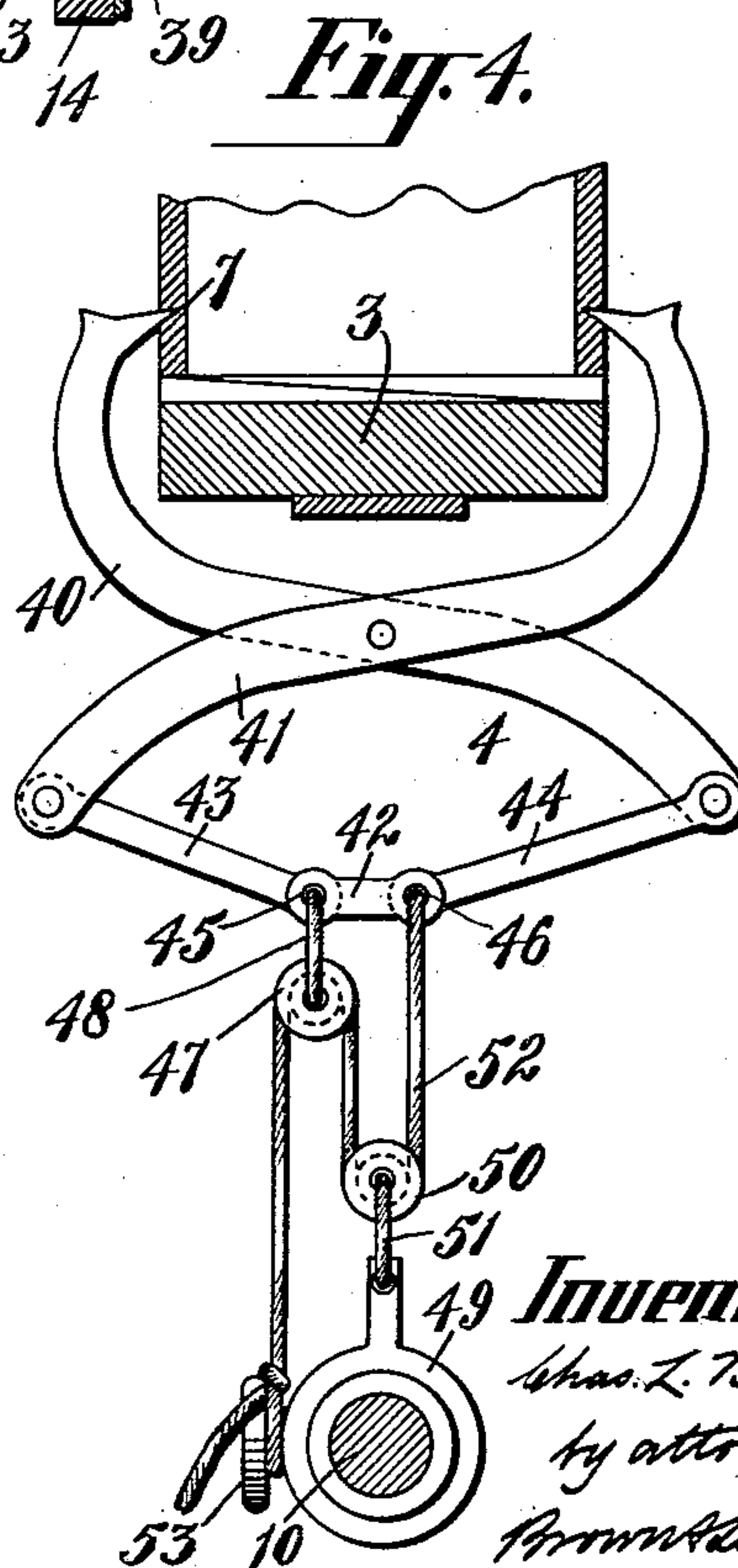
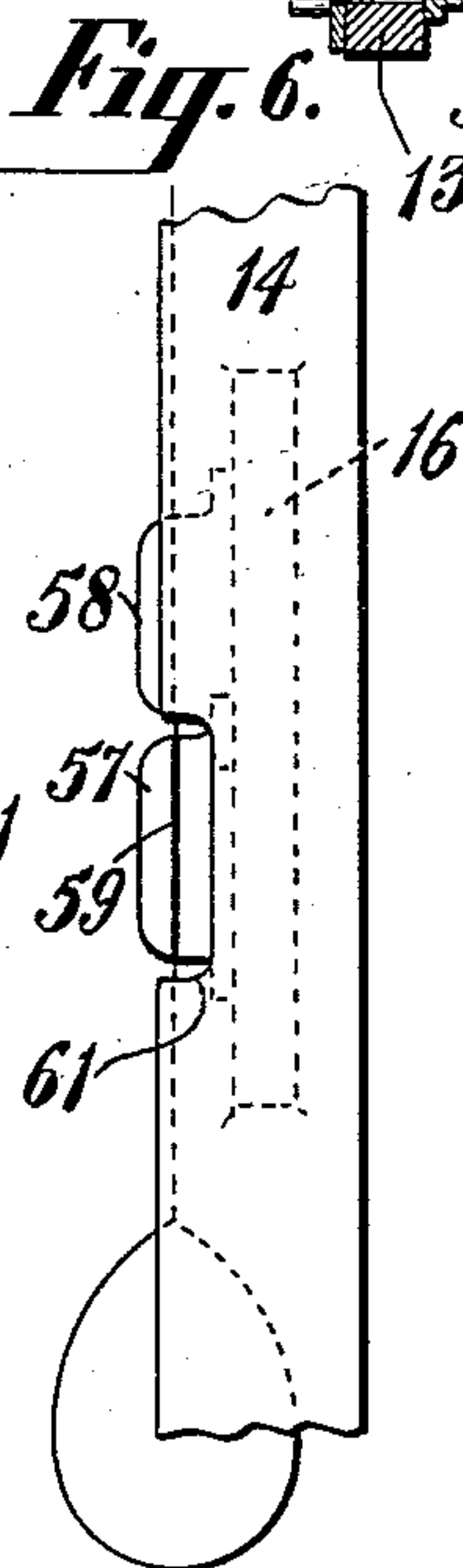
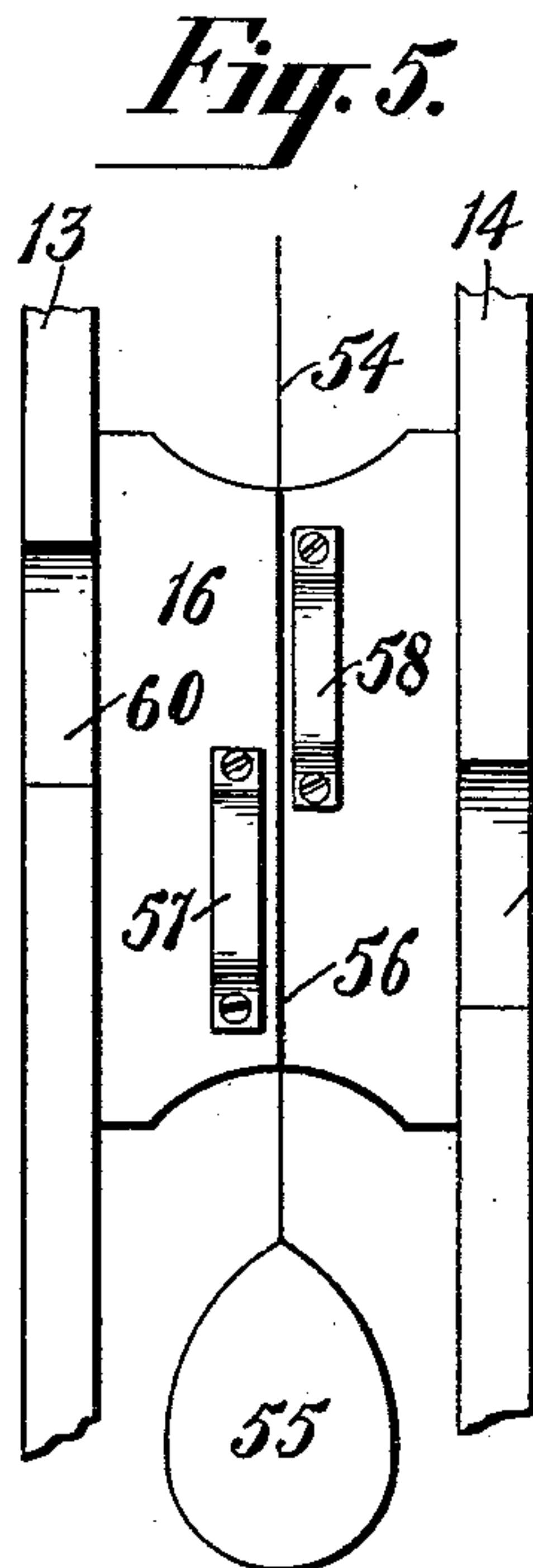
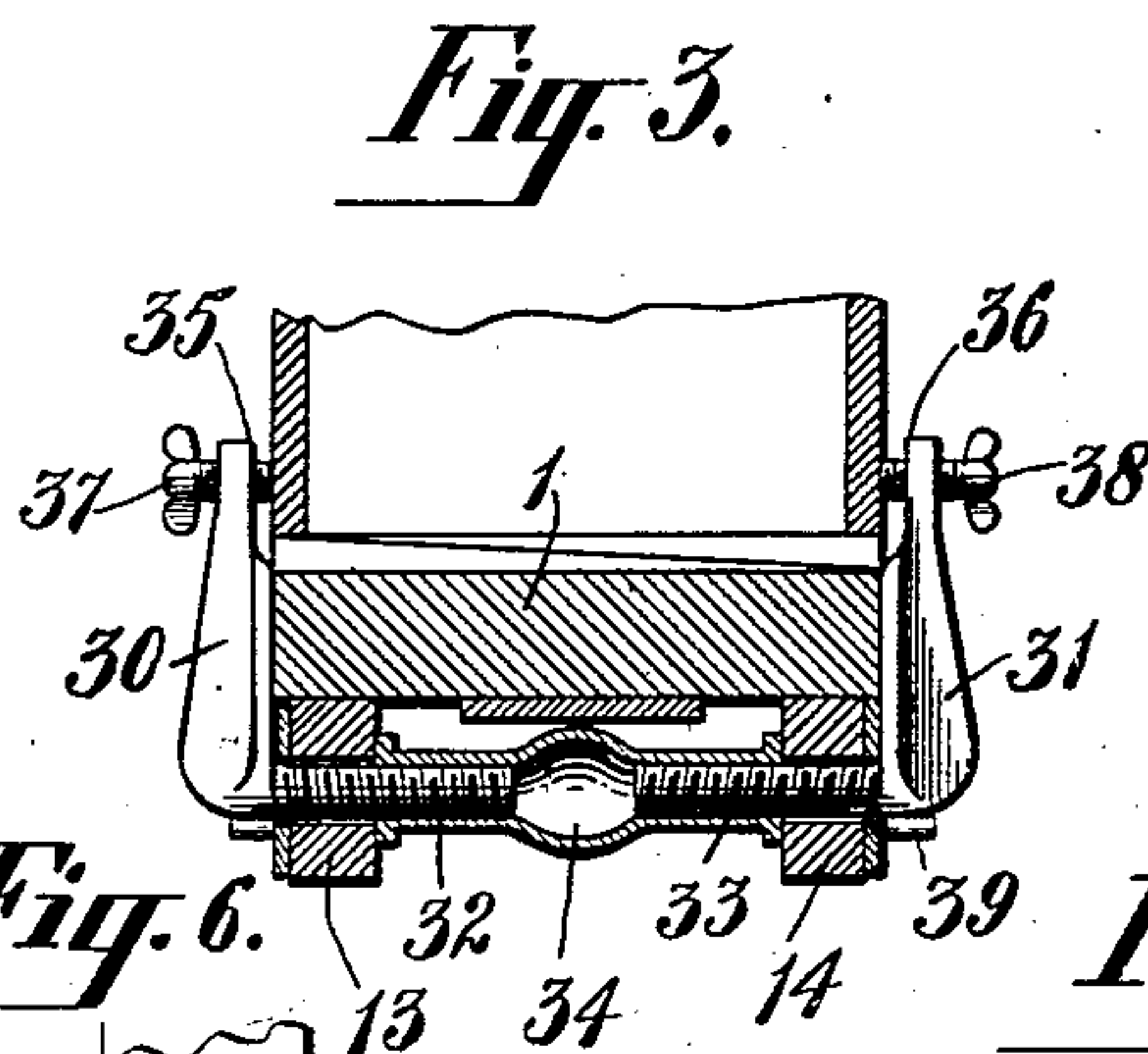
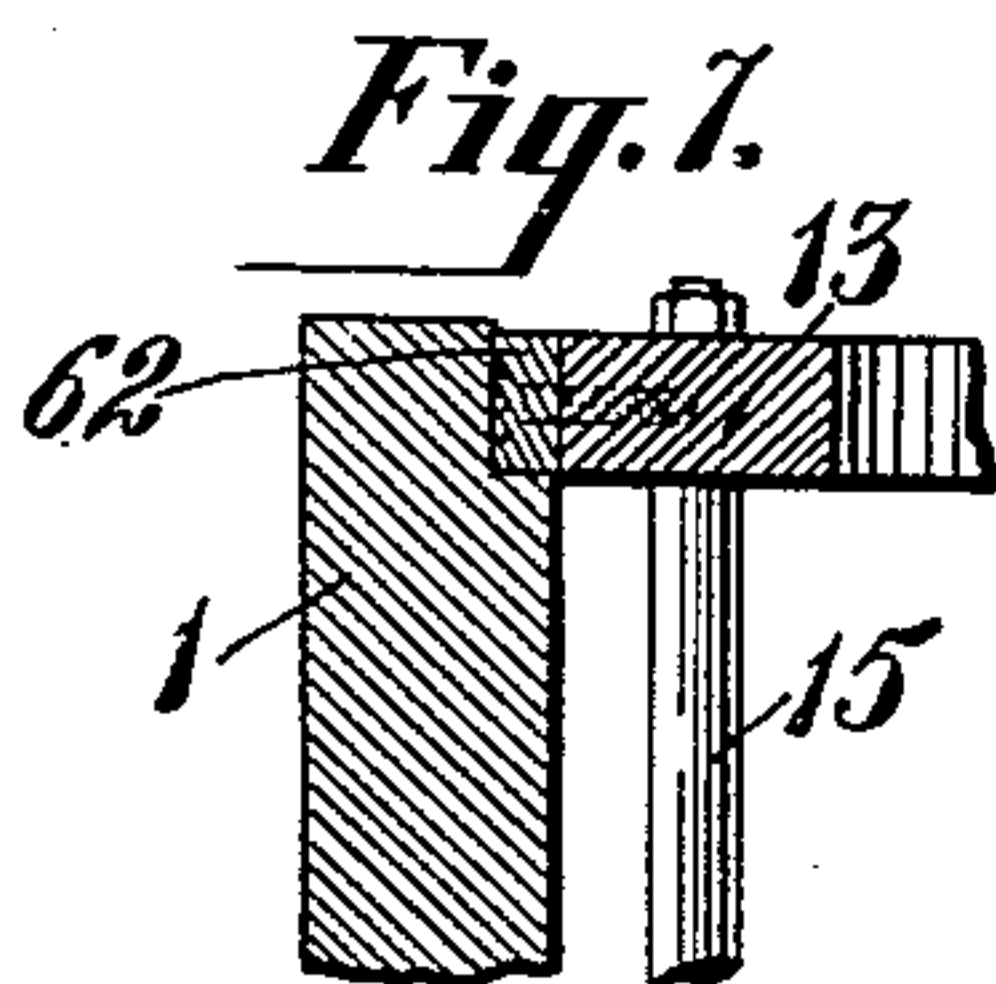
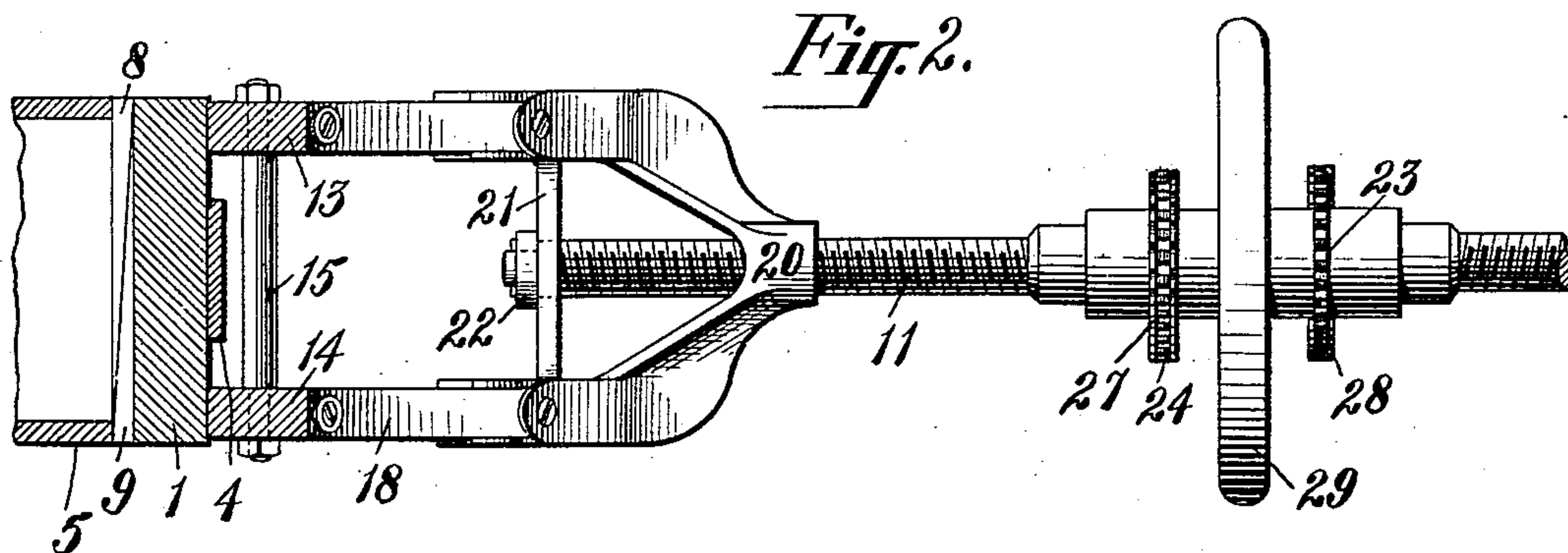
Inventor: C. L. Bronk
by attorneys
Barnes & Ward

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DOOR JAMB SETTING MACHINE.

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NO MODEL.

2 SHEETS—SHEET 2.

**Witnesses:**F. J. Hochberg.
Henry Schmeil.**Inventor:**Chas. L. Bronk
by attorney
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UNITED STATES PATENT OFFICE.

CHARLES L. BRONK, OF NEW YORK, N. Y.

DOOR-JAMB-SETTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 751,050, dated February 2, 1904.

Application filed May 6, 1903. Serial No. 155 837. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. BRONK, a citizen of the United States, and a resident of the borough of Brooklyn, in the city and State of New York, have invented a new and useful Door-Jamb-Setting Machine, of which the following is a specification.

My invention consists of a door-jamb-setting machine; and the object is to provide means for more rapidly and more accurately setting a door-jamb in position in a door-opening than has heretofore been possible by hand.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 represents the machine in front elevation engaged with the door-jamb, the parts being in the position which they assume when the jamb has been properly adjusted within its opening. Fig. 2 is an enlarged detail cross-section in the plane of the line 2 2 of Fig. 1 looking in the direction of the arrow. Fig. 3 is a detail cross-sectional view on the same scale as Fig. 2 in the plane of the line 3 3 of Fig. 1 looking in the direction of the arrows. Fig. 4 is a vertical transverse section on the same scale as Figs. 2 and 3, taken in the plane of the line 4 4 of Fig. 1 looking in the direction of the arrows. Fig. 5 is a detail inside view of one of the double side frames, showing the means for permitting the adjustment of the door-jamb in a plane at right angles to the door-opening. Fig. 6 is a side view of the same parts, showing the means for permitting the accurate vertical adjustment of the door-jamb in the same plane as the door-opening; and Fig. 7 is a detail cross-section showing the frame applied to a rabbeted door-jamb.

The vertical pieces of the door-jamb are denoted by 1 and 2, and the horizontal head-piece by 3.

The stop along the inside walls of the jamb is denoted by 4.

The vertical studs and horizontal head-stud which surround the door-opening are denoted by 5, 6, and 7, respectively.

The usual double wedges 8 and 9 are located between the door-jamb and the studding for locking the jamb in position.

The door-jamb-setting machine is constructed, arranged, and operated as follows: Three horizontally-disposed double screw-shafts 10, 11, and 12 have oppositely-screw-threaded engagements with double vertical side frames, which side frames comprise two uprights 13 14, spaced apart by bolts 15 and spacing-blocks 16. Each upright of these double frames is braced at points where the shafts 10, 11, and 12 engage the side frames by diagonal braces 17 and 18 and a horizontal brace 19. A common casting 20 is provided with branches which engage the adjacent braces of the side frame. This casting 20 is provided with a cross-bar 21 for spacing the inner ends of the braces apart. The screw-threaded portions of each of the screw-shafts engage the castings 20 upon opposite sides of the machine. Each screw-threaded portion of the said shafts has a screw-threaded engagement with the casting 20 and is provided beyond the cross-bar 21 with a collar 22 for preventing the unintentional removal of the said screw-threaded portion.

The shafts 10 11 12 are connected to move together for simultaneously moving the double side frames toward and away from each other as follows: The middle shaft 11 is provided with two sprocket-wheels 23 24, the shaft 12 with a sprocket-wheel 25, and the shaft 10 with a sprocket-wheel 26. These sprocket-wheels are all of the same size. A sprocket-chain 27 connects the sprockets 24 26, and a sprocket-chain 28 connects the sprockets 23 25. The shaft 11 is provided with a suitable hand-wheel 29 for rotating the shafts.

The side frames of the machine support the door-jamb near the top and bottom of its vertical side pieces 1 and 2 by suitable adjustable clamping devices. As all of these clamping devices are of the same construction, I will describe the construction and operation of one of them.

Two clamping-jaws 30 31 are provided with inwardly-projecting screw-shanks 32 33, which pass freely through the side uprights 13 14 and are engaged by an oppositely-screw-threaded coupling 34, the ends of which bear against the inner faces of the side uprights 13 14, so that the coupling may be manipulated for bringing

the jaws 30 31 into clamping contact with the jambs of different widths. These jaws 30 31 project beyond the outer faces of the door-jamb and overlap the door-studding. The inner faces of the jaws are cut away, as shown at 35 36, from their outer ends inwardly to points adjacent to the outer faces of the door-jamb, and thumb-screws 37 38 pass through the outer ends of the jaws into engagement with the stud-
 10 ding. These screws 37 38 may be adjusted with respect to each other, so as to adjust the door-jamb laterally with respect to the studding. When these jaws are not in use, they may be swung into the plane of the uprights of the side
 15 frames, so as to permit the frame to be brought into position within the door-jamb. Stops 39 are provided on the side frames adjacent to each of the clamping-jaws, so as to support the jaws in a position projecting outwardly at right
 20 angles from the side frames.

The means which I employ for suspending the machine and door-jamb is constructed, arranged, and operated as follows: A pair of tongs 40 41 have the upper ends of their arms
 25 sharpened for engagement with the opposite sides of the head-studding of the door-opening. The lower ends of the tongs are connected to a link 42 by rods or bars 43 44. Hollow pivots 45 46 serve to pivot the bars 43 44 to the
 30 link 42. A pulley 47 is suspended by a flexible connection 48 from the link 42 at its pivotal connection with the bar 43. A sleeve or collar 49 is loosely mounted on the double screw-shaft 10, and a pulley 50 is connected
 35 with the said sleeve or collar by a flexible connection 51. A suspension-rope 52 is connected at its upper end to the link 42 at its pivotal connection with the bar 44, which suspension-rope passes downwardly and around the pulley 50,
 40 thence upwardly and around the pulley 47, and from thence down into engagement with a cleat 53, carried by the sleeve or collar 49. The weight of the machine and jamb is thus carried by the tongs 40 41, tending to cause the
 45 tongs to firmly grip the head-studding.

The means which I have shown for accurately adjusting the jamb both in the same plane and in a plane at right angles to the studding is as follows: Along each side of the
 50 machine between the uprights 13 and 14 I suspend a plumb-line 54. This line is preferably attached near the top of the side frame, and its weight 55 is located near the bottom of the frame. One of the spacing-blocks 16,
 55 adjacent to the weight 55, is provided with a centrally-arranged vertical indicator-line 56, which will be brought into alinement with the plumb-line 54 when the door-jamb has been brought into an exact vertical position in a
 60 plane at right angles to the studding. Upon each side of the indicator-line 56 I provide lugs 57 58, between which the plumb-line 54 leads, the inner faces of the said lugs being provided with indicator-lines 59, so that when
 65 the plumb-line 54 and the indicator-lines 59

are brought into alinement the door-jamb is adjusted into the proper vertical position in the plane of the studding. To permit the indicator-lines 59 and the plumb-line to be viewed from either side of the machine, I cut
 70 away one of the uprights opposite the inner face of the lug 58, as shown at 60, and the other of the uprights opposite the inner face of the lug 57, as shown at 61.

In operation the machine is suspended from
 75 the head-studding of the door-opening. The door-jamb is then placed in position to have its vertical pieces 1 and 2 clamped to the side frames of the machine. The machine, and thereby the jamb, are then raised or lowered
 80 to the required position by the suspension-rope 52. The thumb-nuts 37 38 of the clamping-jaws are then manipulated until the plumb-line indicates that the door-jamb has been brought into the proper vertical position
 85 at right angles to the studding. The wedges 8 and 9 are then driven in between the door-jamb and the studding to bring the jamb into the proper vertical position in the plane of the studding, as can be accurately determined
 90 by the plumb-line and indicator-lines 59 on the lugs 57 58. The door-jamb may then be fastened in its position and the machine removed therefrom.

In cases where the door-jamb is rabbeted,
 95 as shown in Fig. 7, instead of having the stop 4 one of the side uprights—as, for instance, the side upright 13—may be pieced out by a block 62, removably secured along the outer edge of the said upright. This block 62 is
 100 equal in thickness to the depth of the rabbeted portion of the jamb.

This machine will insure the rapid and accurate setting of a door-jamb in position, thus insuring the perfect operation of the door
 105 when attached thereto.

It will be seen that the right and left handed screw-threaded shafts permit the side frames to be adjusted toward and away from each other to suit door-jambs of different
 110 sizes, thus rendering the machine practically universal.

What I claim is—

1. A door-jamb-setting machine comprising side frames, means for adjusting the side
 115 frames toward and away from each other and means for clamping the door-jamb to the side frames.

2. A door-jamb-setting machine comprising side frames, means for adjusting the side
 120 frames toward and away from each other, the means for clamping the door-jamb to the side frames and means for suspending the machine.

3. A door-jamb-setting machine comprising side frames, reverse-screw-threaded shafts
 125 connected to move together and engage with the side frames for adjusting them toward and away from each other and means for clamping the door-jamb to the side frames.

4. A door-jamb-setting machine having 130

means for suspending it from the studding, means for clamping the door-jamb to the machine and means for adjusting the door-jamb laterally with respect to its studding.

5 5. A door-jamb-setting machine having means for suspending it from the studding, means for clamping the door-jamb to the machine and a gage for permitting the accurate adjustment of the door-jamb in planes at right
10 angles to and parallel with the studding.

6. A door-jamb-setting machine including clamping devices for securing the door-jamb thereto, each clamping device comprising two
15 clamping-jaws having screw-threaded shanks and an oppositely-screw-threaded coupling engaging the shanks for drawing the clamping-jaws into engagement with the door-jamb.

7. A door-jamb-setting machine including clamping devices for securing the door-jamb
20 thereto and adjusting the door-jamb with respect to the studding, each clamp comprising two clamping-jaws having screw-threaded shanks, a reverse-screw-threaded coupling engaging the shanks for drawing the jaws into
25 engagement with the door-jamb and thumb-nuts carried by the jaws for engaging the studding.

8. A door-jamb-setting machine including means for clamping the door-jamb thereto

comprising a plurality of pairs of adjustable
30 clamping-jaws arranged to be swung into and out of position to clamp the jamb.

9. A door-jamb-setting machine and means for suspending it from the studding comprising
35 tongs, a pulley connected thereto, a pulley connected to the machine and a suspension-rope engaging the said pulleys and having one end secured to the tongs and the other end secured to the machine.

10. A door-jamb-setting machine, having
40 means for adjusting the same into a vertical position comprising a plumb-line, a frame, a spacing-block having an indicator-line thereon and lugs projecting from the block on opposite sides of the indicator-line and an indi-
45 cator-line on the inner faces of the lugs, the said plumb-line being arranged to be brought into alinement with the indicator-lines on the block and lugs when the machine is in a ver-
50 tical position.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 1st day of May, 1903.

CHARLES L. BRONK.

Witnesses:

FREDK. HAYNES,
C. S. SUNDGREN.