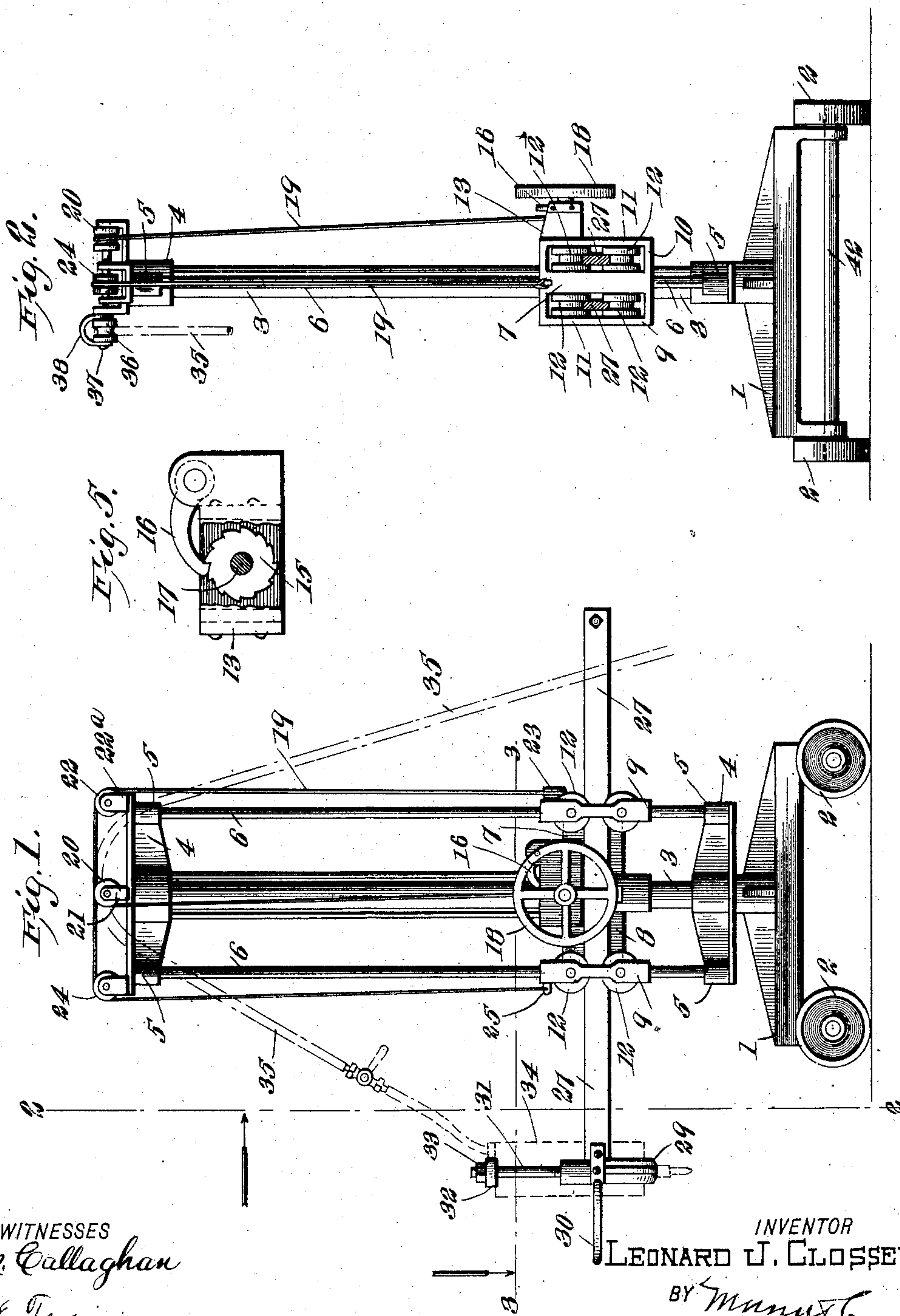


No. 882,492.

PATENTED MAR. 17, 1908.

L. J. CLOSSEY.
POWER HAMMER FRAME.
APPLICATION FILED OCT. 29, 1907.

3 SHEETS—SHEET 1.



WITNESSES
E. M. Callaghan
A. E. Trainor

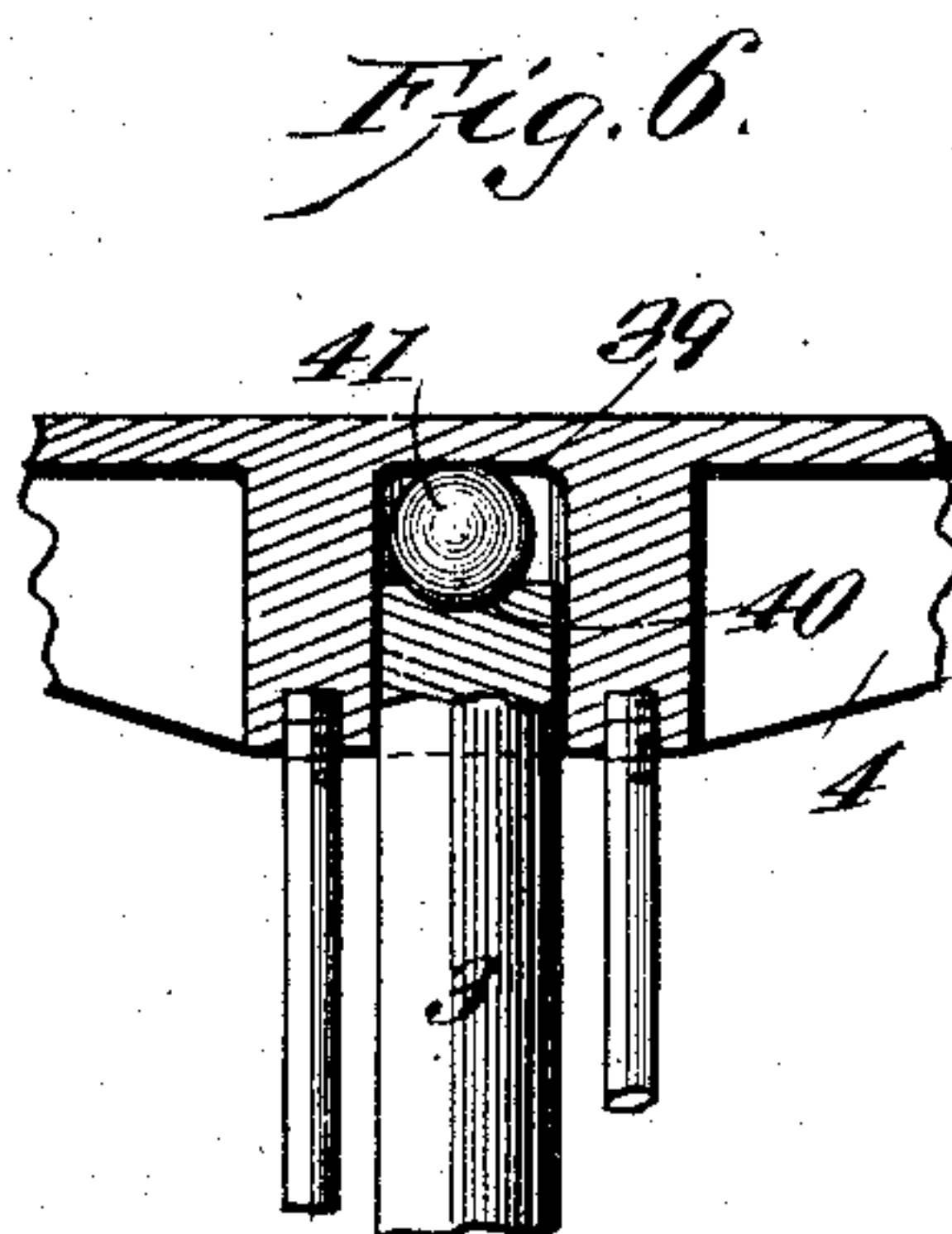
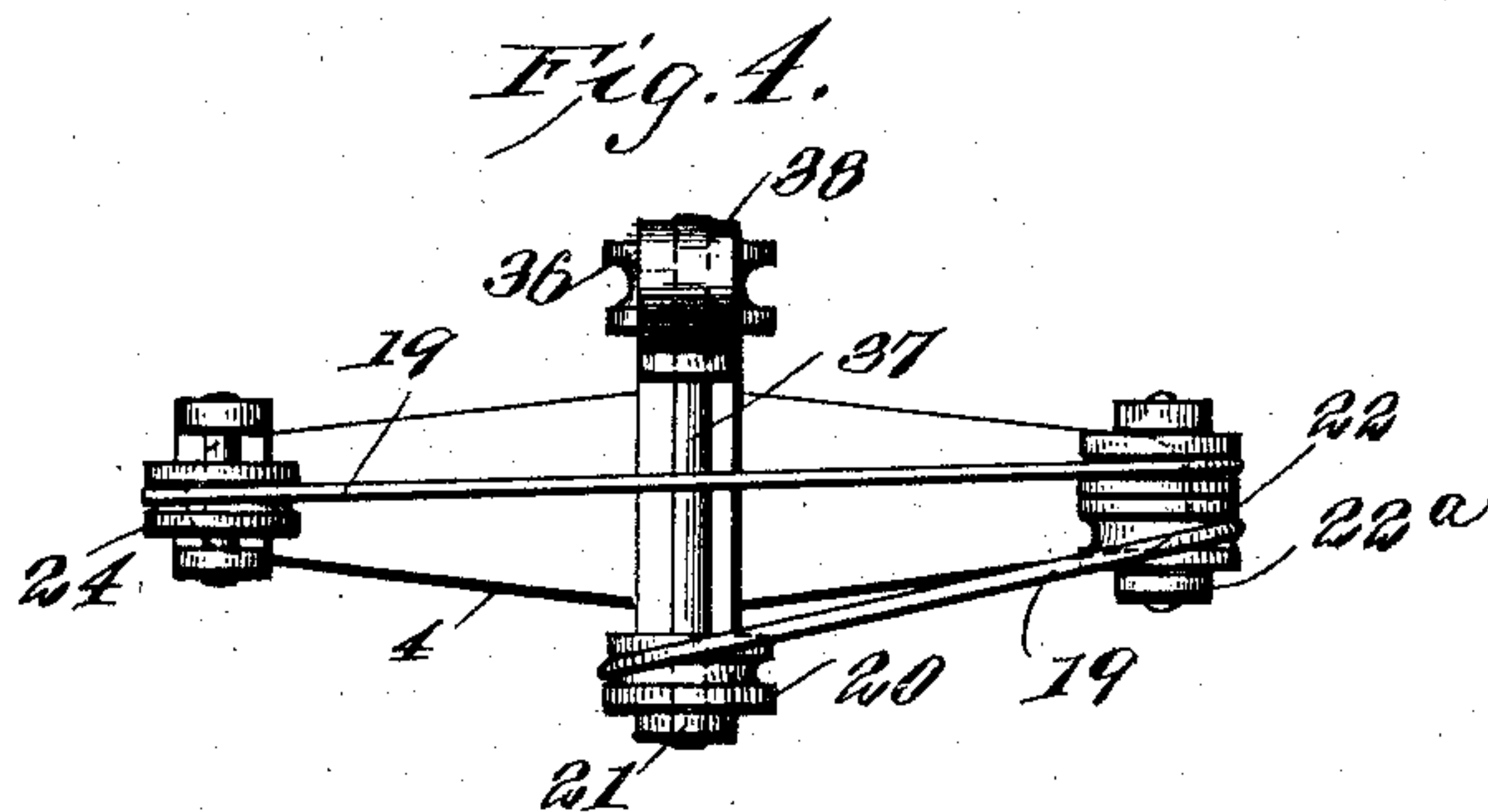
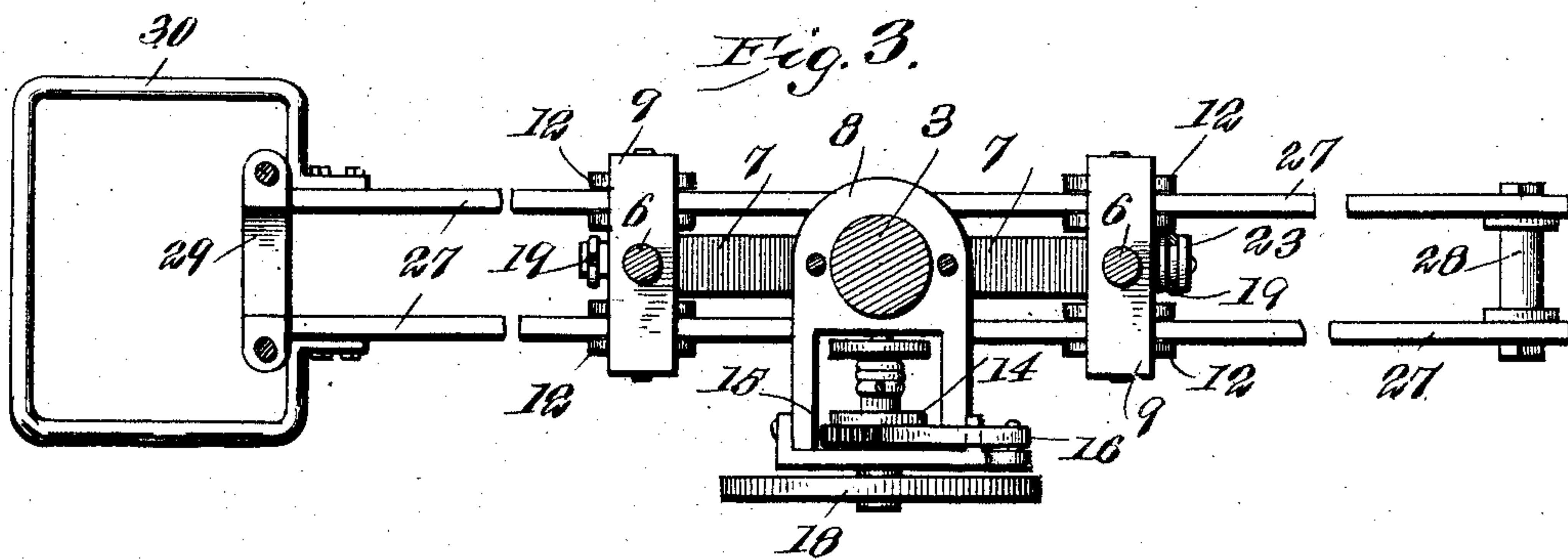
INVENTOR
LEONARD J. CLOSSEY
BY *Munn & Co.*
ATTORNEYS

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3 SHEETS—SHEET 2.



WITNESSES
E. M. Callaghan
C. E. Tramor

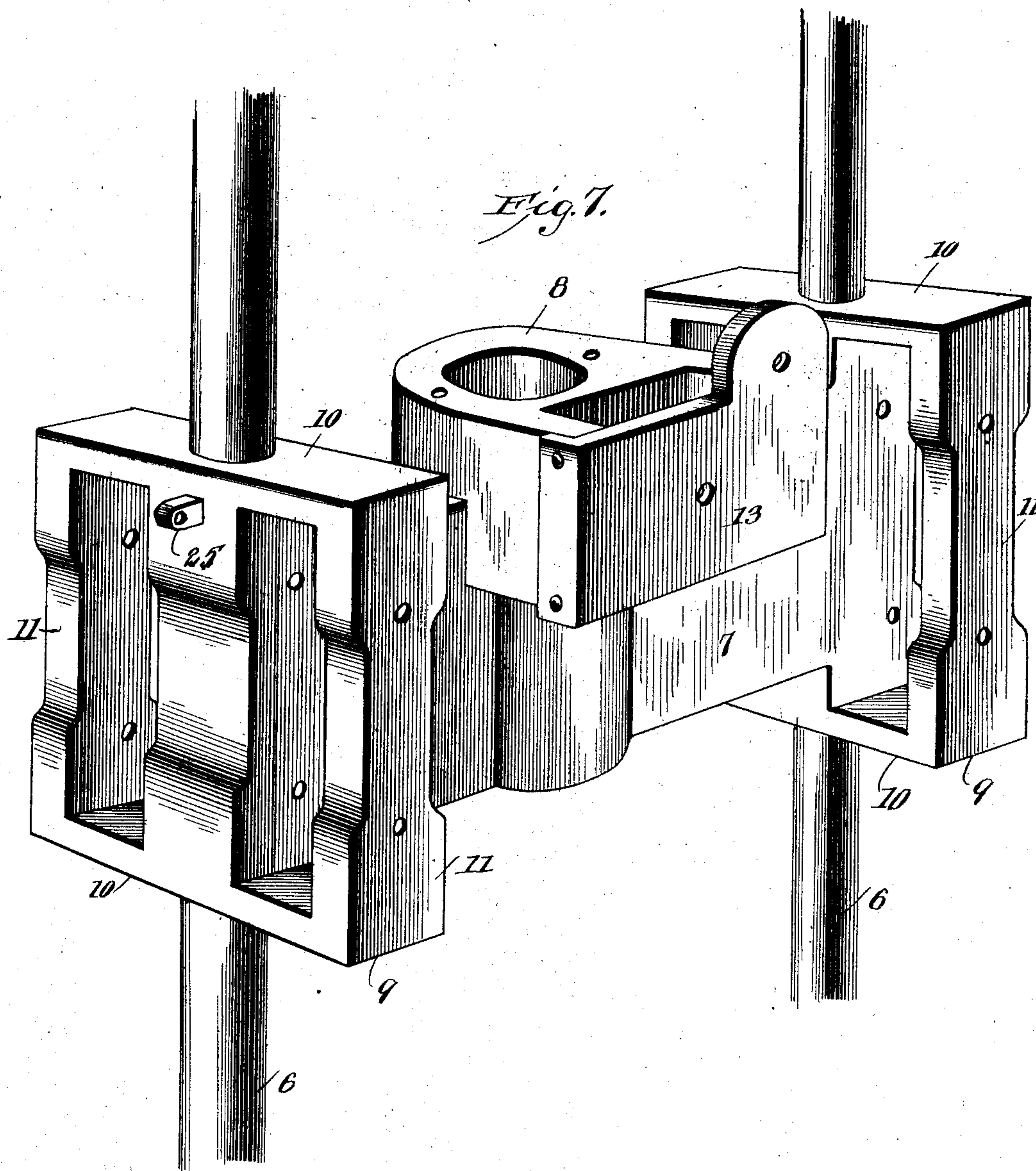
INVENTOR
LEONARD J. CLOSSEY
BY *Munn & Co.*
ATTORNEYS

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3 SHEETS—SHEET 3.



WITNESSES
E. M. Gallagher
C. E. Grimmer

INVENTOR
LEONARD J. CLOSSEY
BY *Munn & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

LEONARD JOSEPH CLOSSEY, OF MONTPELIER, VERMONT.

POWER-HAMMER FRAME.

No. 882,492.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed October 29, 1907. Serial No. 399,630.

To all whom it may concern:

Be it known that I, LEONARD JOSEPH CLOSSEY, a citizen of the United States, and resident of Montpelier, in the county of Washington and State of Vermont, have invented an Improvement in Power-Hammer Frames, of which the following is a specification.

My invention is an improvement in power hammer frames, and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawings forming a part hereof, Figure 1 is a side view of the frame. Fig. 2 is a section on the line 2—2 of Fig. 1, looking in the direction of the arrow. Fig. 3 is a section on the line 3—3 of Fig. 1 looking in the direction of the arrow. Fig. 4 is a plan view of the top cross bar. Fig. 5 is a detail of the pawl and ratchet mechanism. Fig. 6 is a detail sectional view of the top of the shaft or post and cross bar, and Fig. 7 is a perspective view of the third or slidable cross bar.

The present embodiment of my invention comprises a base 1, supported by wheels 2, and provided at its center with an upright shaft 3, having rotatably journaled thereon at its top and bottom cross bars 4, each of said cross bars being provided at its ends with sockets 5 in which are received the ends of rods 6, the rods extending between the corresponding ends of the cross bars. A third cross bar 7 is slidably mounted on the shaft, the said cross bar having at its center a double bearing 8 journaled upon the shaft, and provided at each end with a substantially rectangular frame 9, sliding upon one of the rods 6 before mentioned. Each of the frames comprises ends 10 and sides 11, the ends being provided with openings through which pass the rods, and on each of the sides within the frames are journaled upper and lower grooved wheels 12 for a purpose to be presently described.

The upper member of the double bearing has projecting therefrom a box 13, in which is journaled, at right angles to the shaft 3, a drum 14, having on one end a ratchet wheel 15, engaged by a pawl 16, one of the trunnions 17 of the drum projecting outside of the box and having secured thereto a hand wheel 18. A rope 19 passes through a hole in the drum, and winds thereon, the rope passing from the drum upwardly over a pulley 20 journaled in a bracket 21 at the center

of the top cross bar and over a pulley 22 in a bracket 22^a on the end of the cross bar, thence downwardly and around a pulley 23, journaled on the end of the cross bar 7; upwardly over a pulley journaled in the bracket 22^a, thence to the opposite end of the upper cross bar, and over a pulley 24 and downward to a boss 25 on the opposite end of the cross bar 7 from the pulley 23, to which boss the free end of the rope is secured. By rotating the hand wheel 18, the rope 19 is wound upon or unwound from the drum, thus raising and lowering the cross bar 7 on the shaft, the bar being retained in its adjusted position by the engagement of the pawl 16 with the ratchet wheel 15.

A frame comprising side bars 27, connected at one end by a cross rod 28, is mounted on the movable cross bar 7, the side bars 27 of the frame being movable between the upper and lower pulleys of the frames 9, one side bar being arranged on each side of the cross bar. The side bars 27 are arranged with their widest dimensions vertically, and the edges of the side bars are received in the grooves of the wheel. One end of the frame is provided with a U-shaped bracket 29 arranged vertically, and with a handle 30 arranged horizontally, as clearly shown in Fig. 1. The arms of the U-shaped bracket are provided with studs 31 extending from the free ends thereof, the free ends of the studs being connected by a cross bar 32, held in place by nuts 33 threaded on to the ends of the studs. The U-shaped bracket is adapted to receive the power hammer 34, which, however, forms no part of the invention. The supply pipe 35 of the power hammer passes upward over a grooved wheel 36 secured to a shaft 37, journaled in a bracket 38 on the top of the upper cross bar, and from thence to the source of power. The bearing of the upper cross bar 4 is provided with a depression 39, and the end of the shaft 3 is provided with a similar depression 40, and a ball 41 is arranged in the recess formed by the cooperating depressions, upon which the said cross bar is supported.

It will be understood from the description that the power hammer is adjustable toward and from the central shaft, is rotatable with respect thereto, and is also adjustable vertically with respect thereto, and that the weight of all the movable parts is supported by the ball at the top of the shaft or post 3. The base may be of any suitable construc-

tion, and the wheels for supporting the base may be journaled upon the ends of axles 42 secured to the said base.

I claim:

- 5 1. A power hammer frame comprising a base, a vertical shaft arranged centrally thereon, cross bars rotatably mounted on the shaft at its top and bottom, rods connecting the corresponding free ends of the cross bars, 10 an intermediate cross bar having at its center a bearing for receiving the shaft, and at its ends bearings for receiving the rods, a pair of horizontal bars arranged on each side of the cross bar, grooved wheels supported 15 by the intermediate cross bar and engaging the upper and lower edges of each of said horizontal bars, a yoke for supporting the hammer and connecting one end of said horizontal bars, a handle for manipulating the 20 bars adjacent to the U-shaped bracket, a drum journaled on the sliding cross bar and provided at the outer end of its journal with a hand wheel, a pawl and ratchet in connection with the drum, a plurality of pulleys on 25 the upper cross bar, a pulley at one end of the sliding cross bar, a rope connected with the drum, and extending therefrom upwardly over one of the pulleys on the top cross bar, downwardly over the pulley on the 30 sliding cross bar, upwardly over another pulley, and downwardly to the opposite end of the sliding cross bar, said bar being provided with a boss to which the rope is connected.
- 35 2. A power hammer frame comprising a base, a vertical shaft arranged centrally thereon, cross bars rotatably mounted on the shaft at its top and bottom, rods connecting the corresponding free ends of the cross bars, 40 an intermediate cross bar having at its center a bearing for receiving the shaft, and at its ends bearings for receiving the rods, a pair of horizontal bars arranged on each side of the cross bar, grooved wheels supported 45 by the cross bar and engaging the upper and lower edges of each of said bars, a bracket for supporting the hammer connecting one end of said bars, a handle for manipulating the bars adjacent to the bracket, a drum 50 journaled on the sliding cross bar and provided at its outer end with a hand wheel, and means in connection with the drum for raising and lowering the sliding cross bar.
- 55 3. A power hammer frame comprising a base, a vertical shaft arranged centrally thereon, cross bars rotatably mounted on the shaft at its top and bottom, rods connecting the corresponding free ends of the cross bars, an intermediate cross bar having at its center a bearing for receiving the shaft, 60 and at its ends bearings for receiving the rods, a pair of horizontal bars arranged on each side of the cross bar, grooved wheels supported by the cross bar and engaging the

upper and lower edges of each of said bars, a bracket for supporting the hammer connecting one end of said bars, a handle for manipulating the bars adjacent to the bracket, and means for adjusting the bar vertically on the shaft.

4. A power hammer frame comprising a 70 base, a vertical shaft arranged centrally thereon, cross bars rotatably mounted on the shaft at its top and bottom, rods connecting the corresponding free ends of the cross bars, an intermediate cross bar slidably mounted 75 on the shaft and frame, a pair of horizontal bars arranged on each side of the cross bar, grooved wheels supported by the cross bars and engaging the upper and lower edges of each of said bars, a bracket for supporting 80 the hammer connecting one end of said bars, a handle for manipulating the bars arranged adjacent to the bracket, and means for adjusting the cross bar on the shaft.

5. A power hammer frame, comprising a 85 base, a vertical shaft arranged centrally thereon, a frame rotatably mounted on the shaft, a cross bar adjustable vertically on the frame and shaft, a pair of horizontal bars arranged on each side of the cross bar, 90 grooved wheels supported by the cross bar and engaging the upper and lower edges of each of said bars, a bracket supporting the hammer connecting one end of said bars, and a handle for manipulating the bars adjacent 95 to the bracket.

6. A power hammer frame, comprising a base, a vertical shaft arranged centrally thereon, a cross bar rotatably mounted on the shaft and adjustable vertically with re- 100 spect thereto, a pair of horizontal bars arranged on each side of the cross bar, grooved wheels supported by the cross bar and engaging the upper and lower edges of each of said bars, a bracket for supporting the ham- 105 mer connecting one end of said bars, and a handle for manipulating the bars.

7. A power hammer frame, comprising a base, a vertical shaft arranged centrally thereon, a cross bar rotatably mounted on 110 the shaft and adjustable vertically with respect thereto, a pair of connected bars slidable longitudinally of the cross bar, and a bracket for supporting the hammer connecting one end of said bars.

8. A power hammer frame, comprising a vertical shaft, a cross bar rotatable on the shaft and adjustable vertically with respect thereto, a bar slidable longitudinally of the cross bar, and a bracket for supporting the 120 hammer connected with one end of said bar.

LEONARD JOSEPH CLOSSEY.

Witnesses:

FLORENCE M. WHELOCK,
MARTIN W. WHELOCK.