

No. 781,459.

PATENTED JAN. 31, 1905.

W. L. RAWLS.
WHIP ACTUATING DEVICE.
APPLICATION FILED SEPT. 24, 1904.

2 SHEETS—SHEET 1.

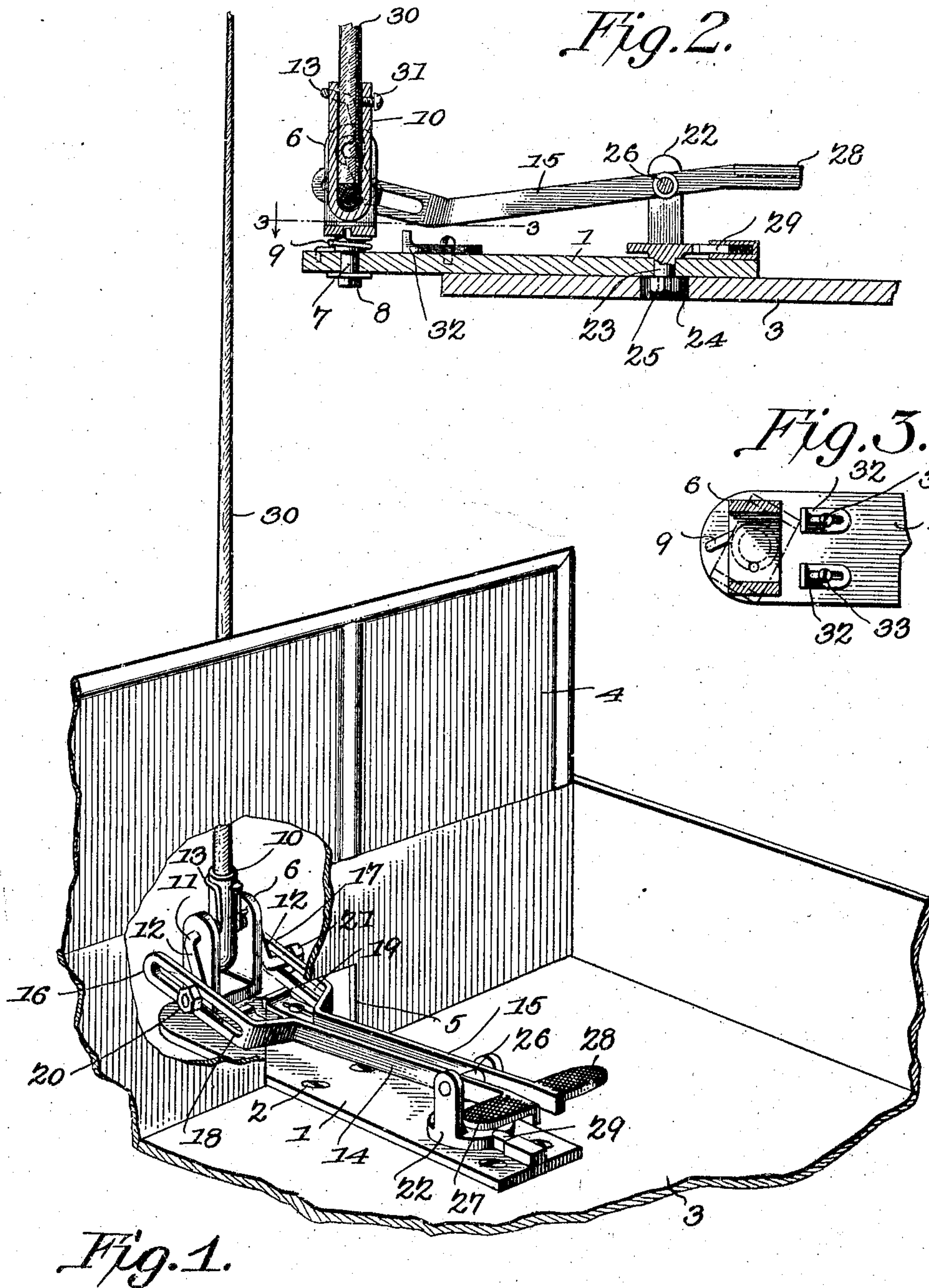


Fig. 1.

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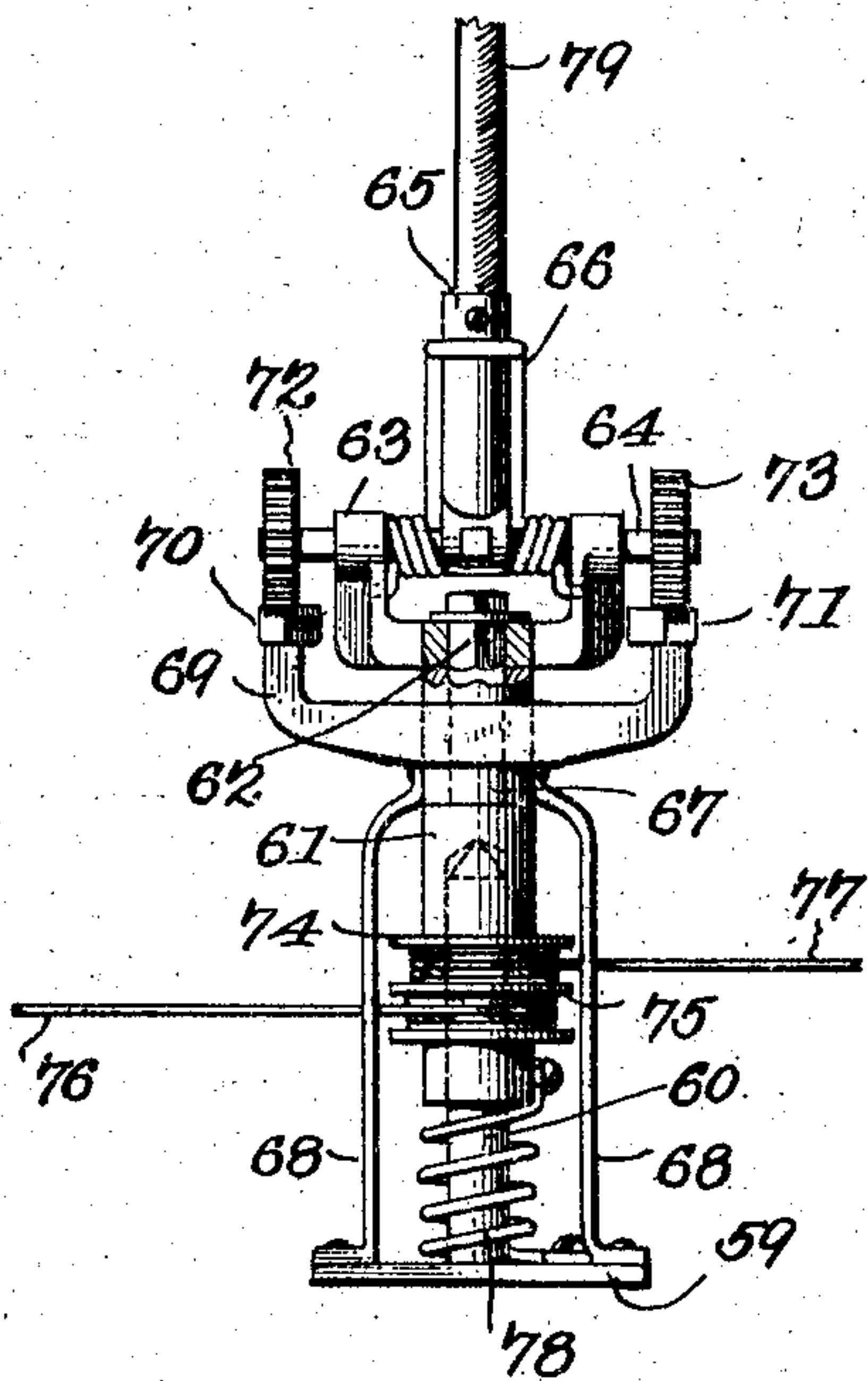
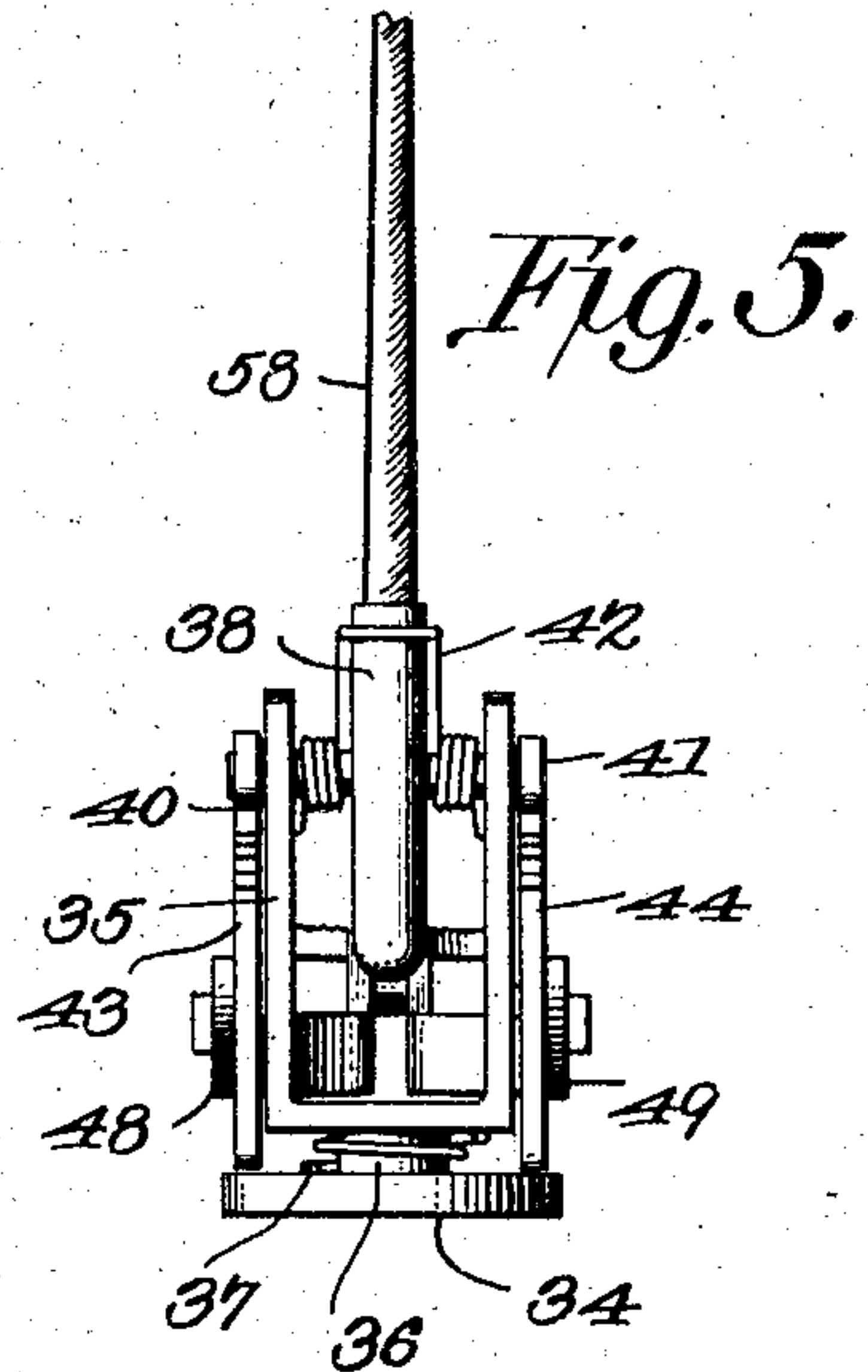
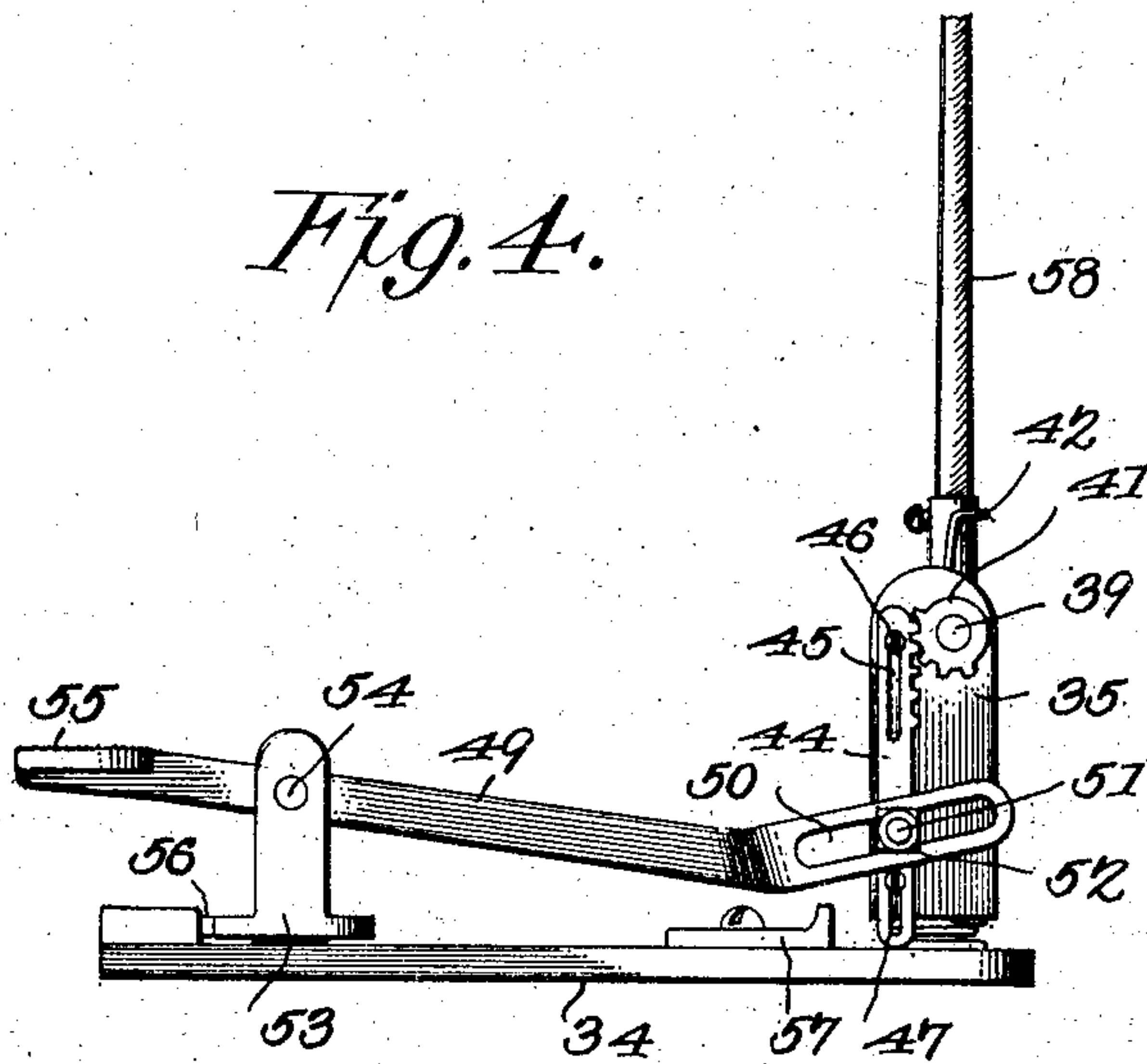


Fig. 6.

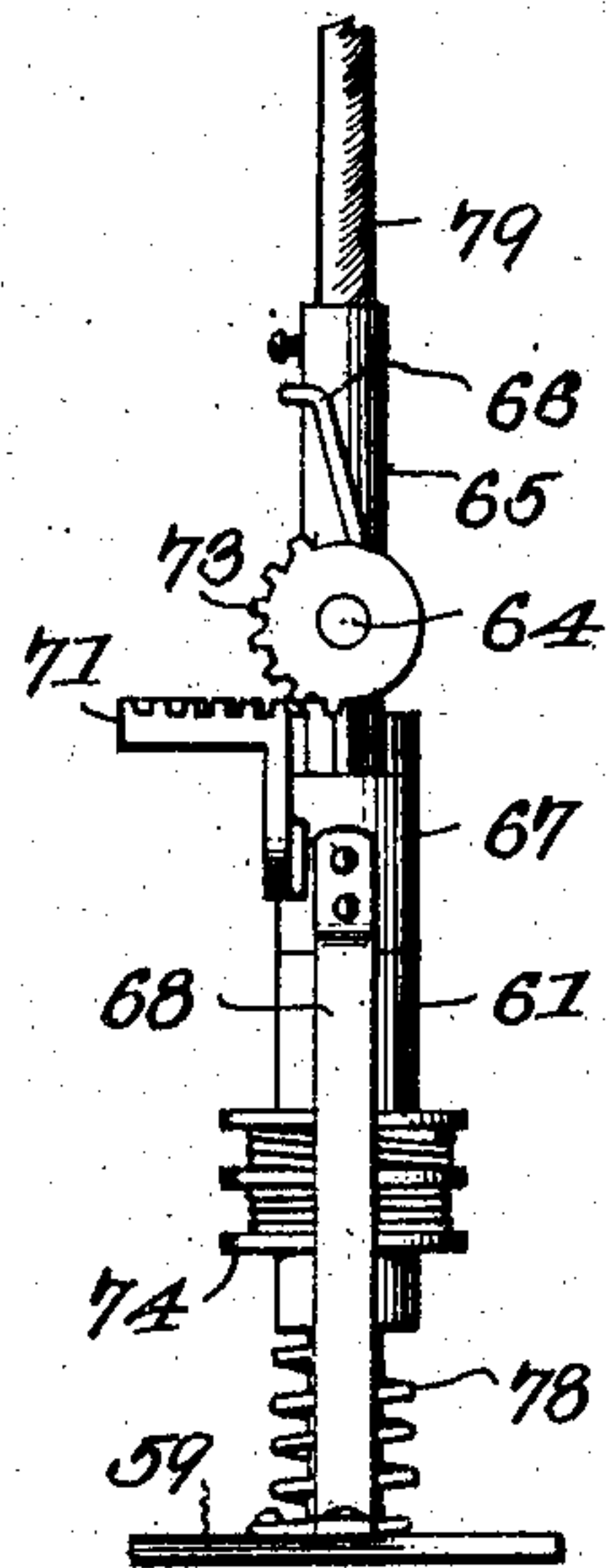


Fig. 7.

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UNITED STATES PATENT OFFICE.

WILLIAM L. RAWLS, OF BELLS, TENNESSEE.

WHIP-ACTUATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 781,459, dated January 31, 1905.

Application filed September 24, 1904. Serial No. 225,841.

To all whom it may concern:

Be it known that I, WILLIAM L. RAWLS, a citizen of the United States, residing at Bells, in the county of Crockett and State of Tennessee, have invented a new and useful Whip-Actuating Device, of which the following is a specification.

This invention relates to whip-actuating devices, and has for its object to provide improvements in this class of devices whereby the whip may be mechanically controlled either by foot or hand to swing the same downwardly against either animal or a team and to effect an automatic return of the device to its normal position after the completion of the whipping action.

Another object of the invention is to provide for mounting the device upon the bottom of the vehicle immediately in front of the dashboard and also to provide for controlling the device from a point within the vehicle.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of one embodiment of the present invention and includes a fragmentary portion of a vehicle-body having a part of the dash broken away to show the entire device. Fig. 2 is a detail longitudinal sectional view. Fig. 3 is a detail plan section on the line 3-3 of Fig. 2. Figs. 4 and 5 are side and end elevations, respectively, of another embodiment of the invention. Figs. 6 and 7 are end and side elevations, respectively, of still another embodiment of the invention.

Like characters of reference designate corresponding parts in each of the several figures of the drawings.

The embodiment of the present invention, as illustrated in Figs. 1 to 3, inclusive, includes a base 1, which is secured by suitable fasten-

ings 2 to the upper side of the bottom 3 of any ordinary vehicle, the dash thereof being indicated at 4. This base extends through an opening 5, formed in the dash, and projects in front of the latter. Upon the projected portion of the base is a whip-support or substantially U-shaped bracket 6, which is provided with a pendent stem 7, loosely piercing the projected portion of the base, so as to be swiveled or pivoted thereon and held in place by a suitable nut 8, fitted to the lower end of the stem. A helical spring 9 embraces the stem and is connected at opposite ends to the bracket and the base to yieldably maintain the bracket in its normal condition disposed transversely of the base. An upstanding whip-socket 10 is disposed between the sides of the bracket 6 and is fixed to a shaft 11, which pierces the sides of the bracket and is provided at each end with a crank-arm 12, located externally of the bracket. A suitable spring 13 embraces the whip-socket and has its opposite ends coiled around the shaft and connected to the bracket so as to yieldably maintain the socket in an upright position.

The means for actuating the whip-socket consists of duplicate levers 14 and 15, located in substantial parallelism in rear of the bracket 6 with their forward ends offset outwardly, as at 16 and 17, and respectively provided with the longitudinal slots 18 and 19, receiving the respective double crank-arms 12, the latter being provided upon their outer ends with the respective nuts 20 and 21 to prevent lateral separation of the levers from the cranks. For the support of these levers there is a swiveled or rotatable bracket 22, having a stem 23 loosely piercing the base 1 and entering an opening 24 in the bottom of the vehicle, there being a nut or head 25 applied to the lower end of the stem to retain the bracket in place without interfering with the ready rotation thereof. This bracket is substantially U-shaped and receives the levers 14 and 15 between the opposite sides thereof, with a pivot pin 26 piercing the sides of the bracket and the levers as a fulcrum for the latter. The rear ends of the levers are provided with the respective foot-pieces or treadles 27 and 28, which extend laterally outward in opposite

directions. A spring-pressed pawl or dog 29 is mounted upon the base 1 for engagement with a suitable notch or seat in the peripheral edge of the base of the bracket 22, so as to
5 normally maintain the latter in its normal position.

The operation of the form of device thus far described is as follows: Any suitable whip 30 is fitted in the whip-socket 10 and is held
10 therein preferably by means of a clamping-screw 31 piercing the socket. If it is desired to whip the right-hand animal of the team, the driver presses his foot upon the treadle or foot-piece 28 of the lever 15, thereby swing-
15 ing the forward end of the latter upwardly, the initial movement of which turns the bracket 6 to the right upon its stem 7 until arrested by one of the stops 32, adjustably held upon the base by means of a fastening 33, passed
20 through a slot in the stop device and engaging the base. At the completion of the turning movement of the bracket 6 the further movement of the lever swings the adjacent crank upwardly, thereby throwing the whip-
25 socket and the whip forwardly and downwardly to strike the desired animal. Upon removing the foot from the lever 15 the spring 13 automatically returns the whip-socket and the levers to their normal positions, while the
30 spring 9 automatically returns the bracket 6 to its normal position. When the bracket 6 turns to the right under the initial movement of the lever, the latter will of course be shifted rearwardly to a slight extent, and
35 this rearward movement is permitted by reason of the pivotal or swiveled mounting of the bracket 22. It will here be explained that the dog or pawl 29 is forced back out of the notch in the bracket 22 when the latter is
40 turned, and said dog automatically snaps back into the notch when the bracket resumes its normal position.

Another embodiment of the invention has been shown in Figs. 4 and 5, wherein 34 des-
45 ignates a base similar to that hereinbefore described, while 35 designates a substantially U-shaped bracket provided with a stem 36, rotatably carried by the bracket and embraced by a spring 37, which is connected to the
50 bracket and the base, so as to yieldably maintain the bracket in its normal position disposed transversely across the base. Within the bracket is an upstanding whip-socket 38, mounted upon and adapted to rotate with a
55 shaft 39, which pierces the sides of the bracket and is provided upon its opposite extremities with gears 40 and 41, respectively, lying externally of the bracket. A spring 42 embraces the whip-socket and has its opposite
60 portions coiled about the shaft and connected to the bracket to yieldably maintain the socket in an upright position. Upstanding rack-bars or toothed links 43 and 44 are lo-
65 cated at opposite sides of the bracket, each bar or link being provided with a longitudinal

slot 45 and having a guide-pin or headed fastening 46 passing through the slot and engaging with the bracket, there being a similar slot-and-pin slidable connection 47 at the
bottom of the link or bar to insure an upright 70 working thereof. For actuating the rack-bars 43 and 44 there are duplicate levers 48 and 49, each of which is provided with a longitudinal slot 50, receiving a pin 51, projected from the adjacent rack-bar and having a nut 52 75 thereon to prevent displacement of the lever. In rear of the bracket 35 is a bracket 53, substantially the same as the bracket 22, (shown in Figs. 1 to 3, inclusive,) each lever being ful-
80 crumed upon a fulcrum-pin 54, carried by the bracket. Upon the rear end of each lever is a treadle or foot-piece 55, and a spring-pressed dog or pawl 56 engages a notch or seat in the bracket 53 to yieldably maintain
85 the latter in its normal position. A pair of stops, one of which has been shown at 57, and similar to the stops 32, (shown in Fig. 3 of the drawings,) is provided upon the base 34 to limit rotation of the bracket 35. When either
90 of the levers 48 and 49 is depressed, the initial movement thereof operates to swing the bracket 35 to the right or to the left until stopped by one of the stop devices 57, after which the upward movement of the forward
95 end of the lever elevates the adjacent rack-bar, which in turn rotates the shaft 39 and swings the whip-socket and the whip 58 downwardly upon the arm, the bracket 53 of course turning to accommodate the sliding rearward
100 movement of the lever during the turning or shifting of the bracket 35.

In Figs. 6 and 7 of the drawings there has been shown another embodiment of the invention which includes a base 59, having a rigid
upstanding post 60, with a standard 61 rotatably 105 supported upon the post and provided in its lower end with a socket to receive the post. The upper end of the standard 61 is provided with a reduced stem 62, upon which is rigidly
110 carried a yoke-shaped or substantially U-shaped bracket 63. A substantially horizontal shaft 64 pierces the opposite ends of the bracket 63 as bearings and carries an upstanding whip-socket 65. A substantially U-shaped
115 spring 66 embraces the whip-socket, with its opposite portions coiled around the shaft and engaged with the bracket 63 to yieldably maintain the whip-socket in an upstanding position. A sleeve 67 rotatably embraces the
120 stem 62 and is rigidly supported by means of the arms 68, rising from the base. This sleeve carries a substantially U-shaped cross-head 69, provided upon its opposite ends with substantially horizontal arcuate racks 70 and 71,
125 with which mesh the gears 72 and 73, carried by opposite ends of the shaft 64. A drum or spool 74 is carried by the rotatable standard 61, and a cord or cable 75 is wrapped around the same with its end portions 76 and 77 ex-
130 tending in opposite directions from the drum.

A helical spring 78 embraces the lower portion of the post 60 and is connected at opposite ends to the standard 61 and the base 59.

In the operation of the last-described embodiment of the invention one or the other of the end portions 76 and 77 of the cord 75 is pulled, thereby rotating the standard 61 upon the post 60, so as to bring the whip 79 into position to strike one or the other of the animals of a team. After the initial turning of the standards 61 one or the other of the gears 72 and 73 engages its adjacent rack, thereby rotating the shaft 64 and swinging the whip-socket and the whip downward. As indicated in Fig. 7, it will be seen that the racks are projected in rear of the standard and are arcuate in shape, so as to accommodate the gears when being turned with the whip-socket.

Having thus described the invention, what I claim is—

1. In a whip-actuating device, the combination of a vertically-swinging whip-socket mounted for shiftable movement upon a vertical axis, and a single controlling device to initially shift the whip-socket upon its vertical axis and then to swing the socket downwardly and forwardly by a continuous movement of the device in one direction.

2. In a whip-actuating device, the combination of a bracket mounted for shiftable movement upon a vertical axis, a shaft carried by the bracket, a whip-socket carried by and movable with the shaft, and controlling means connected to the shaft to initially shift the bracket upon its axis and then to rotate the shaft and swing the whip-socket downwardly and forwardly.

3. In a whip-actuating device, the combination of a bracket mounted for shiftable movement upon a vertical axis, a shaft carried by the bracket, a whip-socket carried by the shaft, a lever-bracket mounted for shiftable movement upon a vertical axis, and a lever fulcrumed upon the lever-bracket and operatively connected with the shaft.

4. In a whip-actuating device, the combination of a bracket mounted for shiftable movement upon a vertical axis, a shaft carried by the bracket, a whip-socket carried by the shaft, a lever-bracket mounted for shiftable rotation upon a vertical axis, and a lever fulcrumed upon the lever-bracket and having a slotted slidable operative connection with the shaft.

5. In a whip-actuating device, the combination of a bracket mounted for shiftable rotation upon a vertical axis, a shaft carried thereby, a whip-socket upon the shaft, a stop to limit the shiftable rotation of the bracket, and means operatively connected to the shaft to initially shift the bracket and then rotate the shaft.

6. In a whip-actuating device, the combina-

tion of a bracket mounted for shiftable rotation upon a vertical axis, a shaft carried thereby, a whip-socket carried by the shaft, a lever-bracket mounted for shiftable rotation upon a vertical axis, and a pair of levers fulcrumed upon the lever-bracket and operatively connected to the respective ends of the shaft.

7. In a whip-actuating device, the combination of a substantially U-shaped bracket mounted for shiftable rotation upon a vertical axis, a rotatable shaft piercing the sides of the bracket and provided with terminal crank-arms located externally of the bracket, a whip-socket carried by the shaft between the sides of the bracket, a spring to yieldably maintain the whip-socket in an upright position, another bracket mounted for shiftable rotation upon a vertical axis, a latch to lock said bracket, and a pair of levers fulcrumed upon the second-mentioned bracket and having their forward ends longitudinally slotted and receiving the crank-arms.

8. In a whip-actuating device, the combination of a bracket mounted for shiftable movement upon a vertical axis, a swinging whip-socket carried by the bracket, controlling means to shift the bracket upon its axis and to swing the whip-socket downwardly and forwardly, and a spring to automatically return the bracket to its original position when the controlling means is released.

9. In a whip-actuating device, the combination with a support, of a rotatable bracket having a stem mounted upon the support, a helical spring embracing the stem and connected to the support of the bracket, a swinging whip-socket carried by the bracket, and controlling means to shift the bracket upon its axis and to swing the whip-socket.

10. In a whip-actuating device, the combination with a support, of a rotatable bracket mounted upon a vertical axis upon the forward end of the support, adjustable stops carried by the support to limit the rotatable movement of the bracket, a rotatable shaft carried by the bracket and having terminal crank-arms, a whip-socket carried by the shaft, a spring to yieldably maintain the whip-socket in an upright position, a second bracket mounted to rotate upon a vertical axis upon the rear of the support, a latch to lock the second bracket against rotation, and a pair of levers fulcrumed upon the second bracket and operatively connected to the respective crank-arms.

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

WM. L. RAWLS.

Witnesses:

R. C. TURNER,
W. B. BELL.