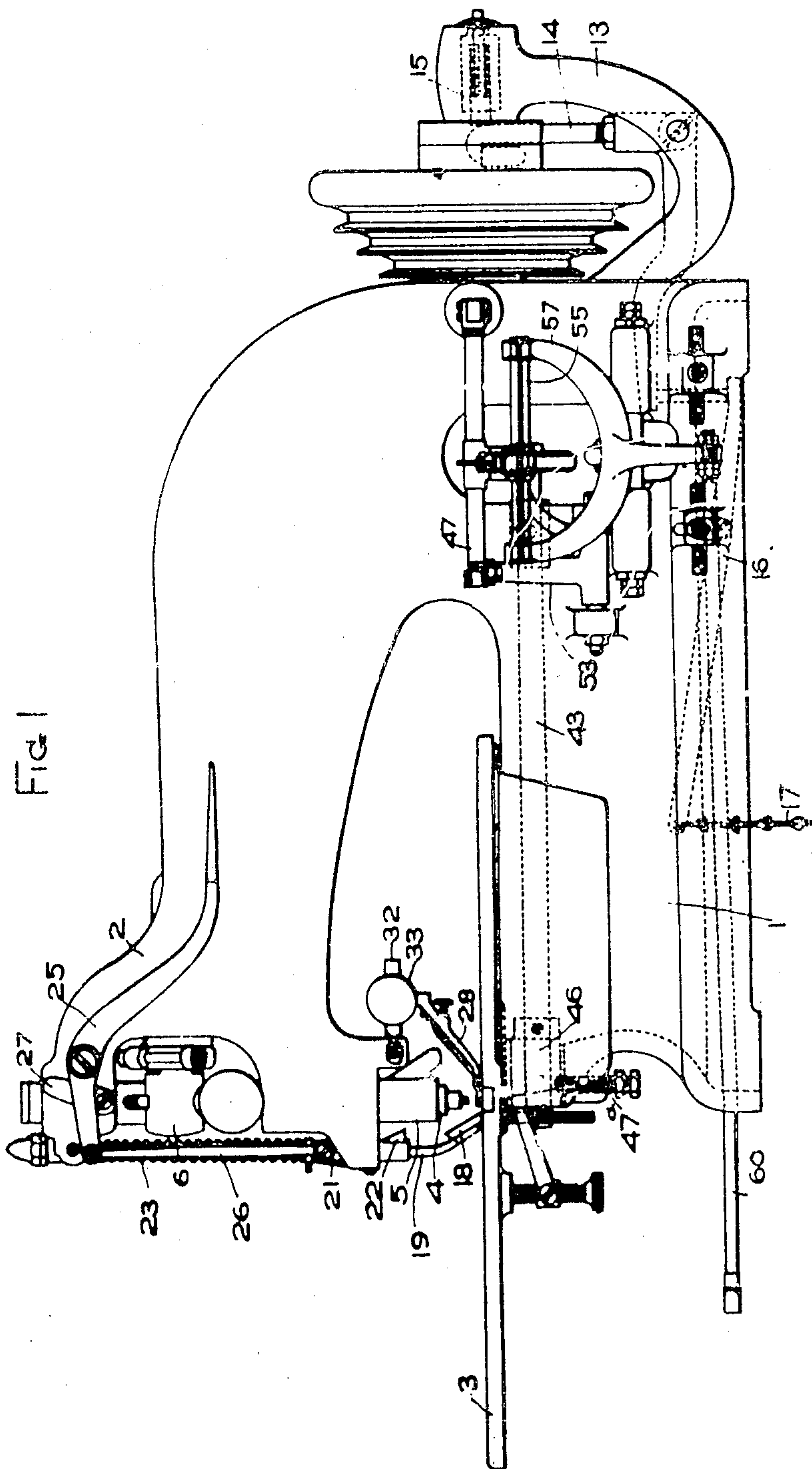


955,711



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C. P. STANBON.
 LEATHER STITCHING MACHINE.
 APPLICATION FILED NOV. 28, 1903.

Patented Apr. 19, 1910.

5 SHEETS—SHEET 2.

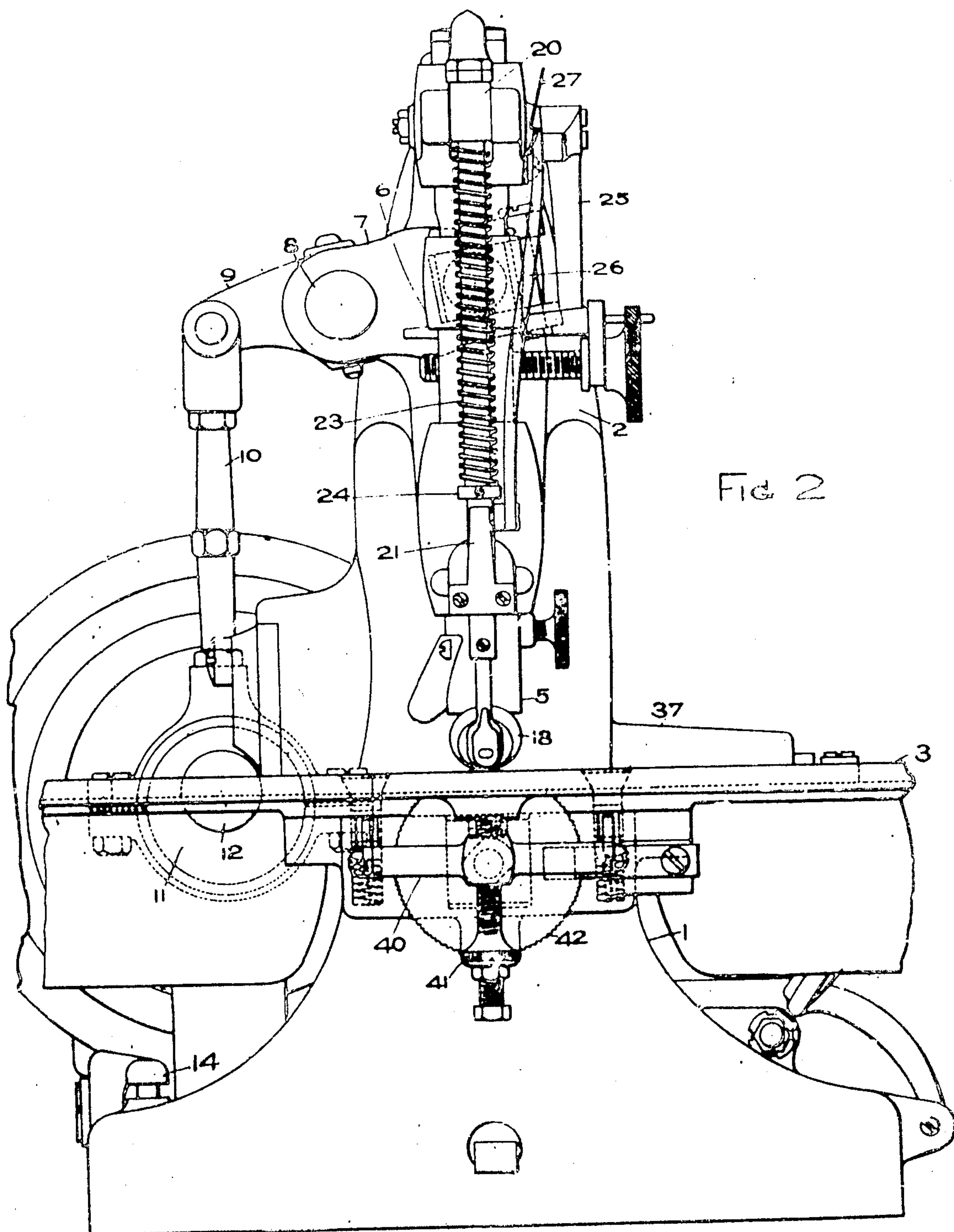


FIG 2

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6 SHEETS—SHEET 3.

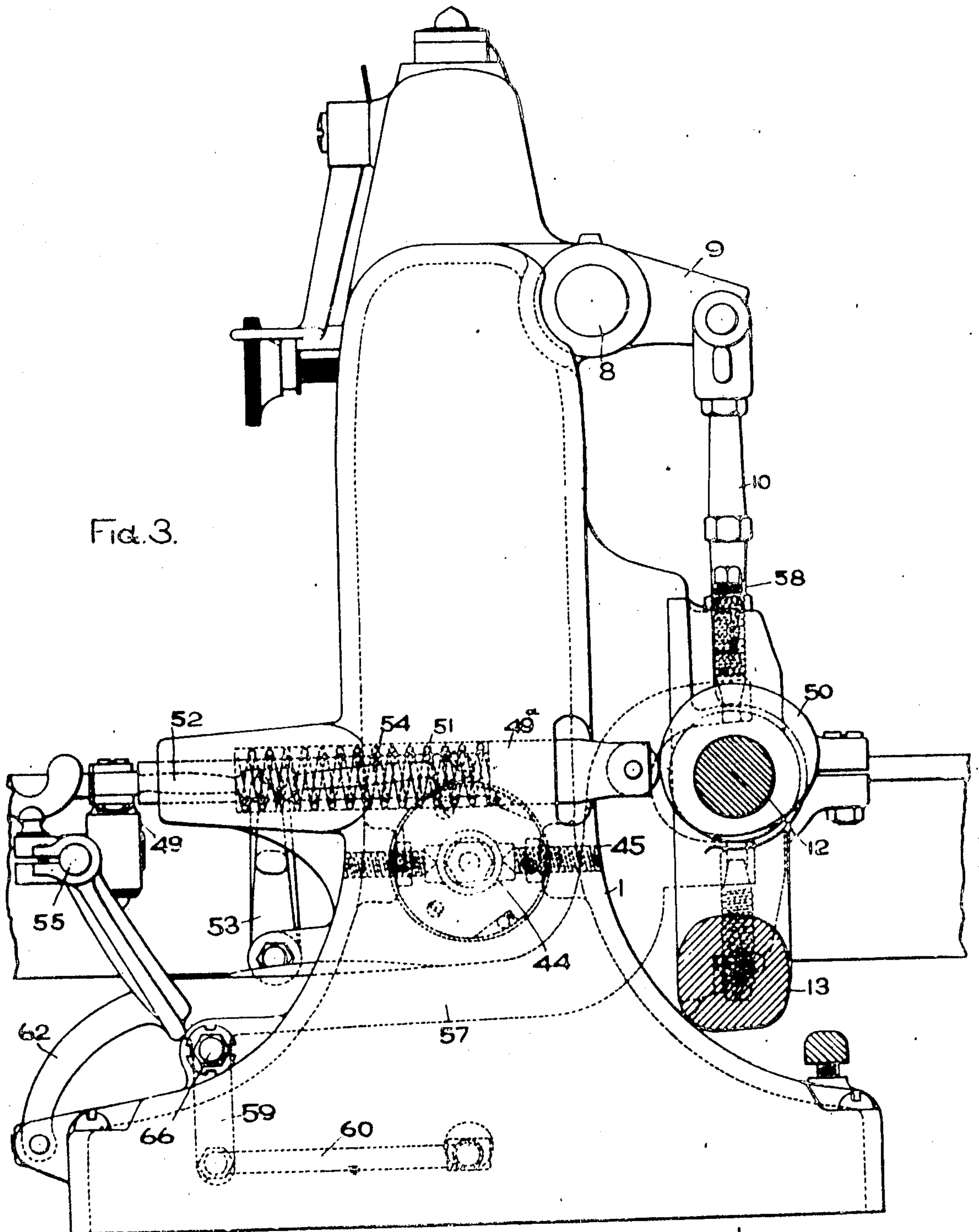


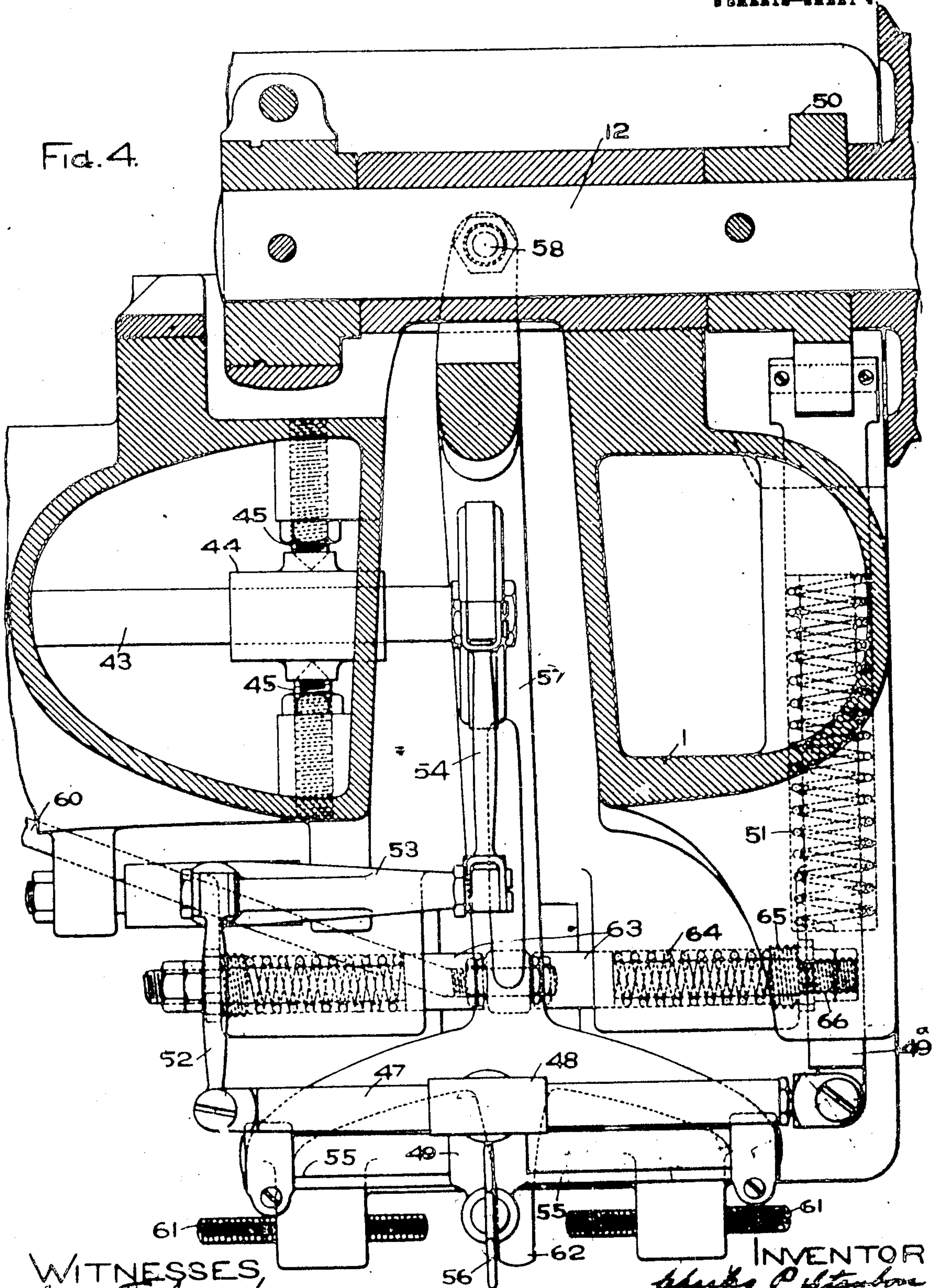
Fig. 3.

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Fig. 4.



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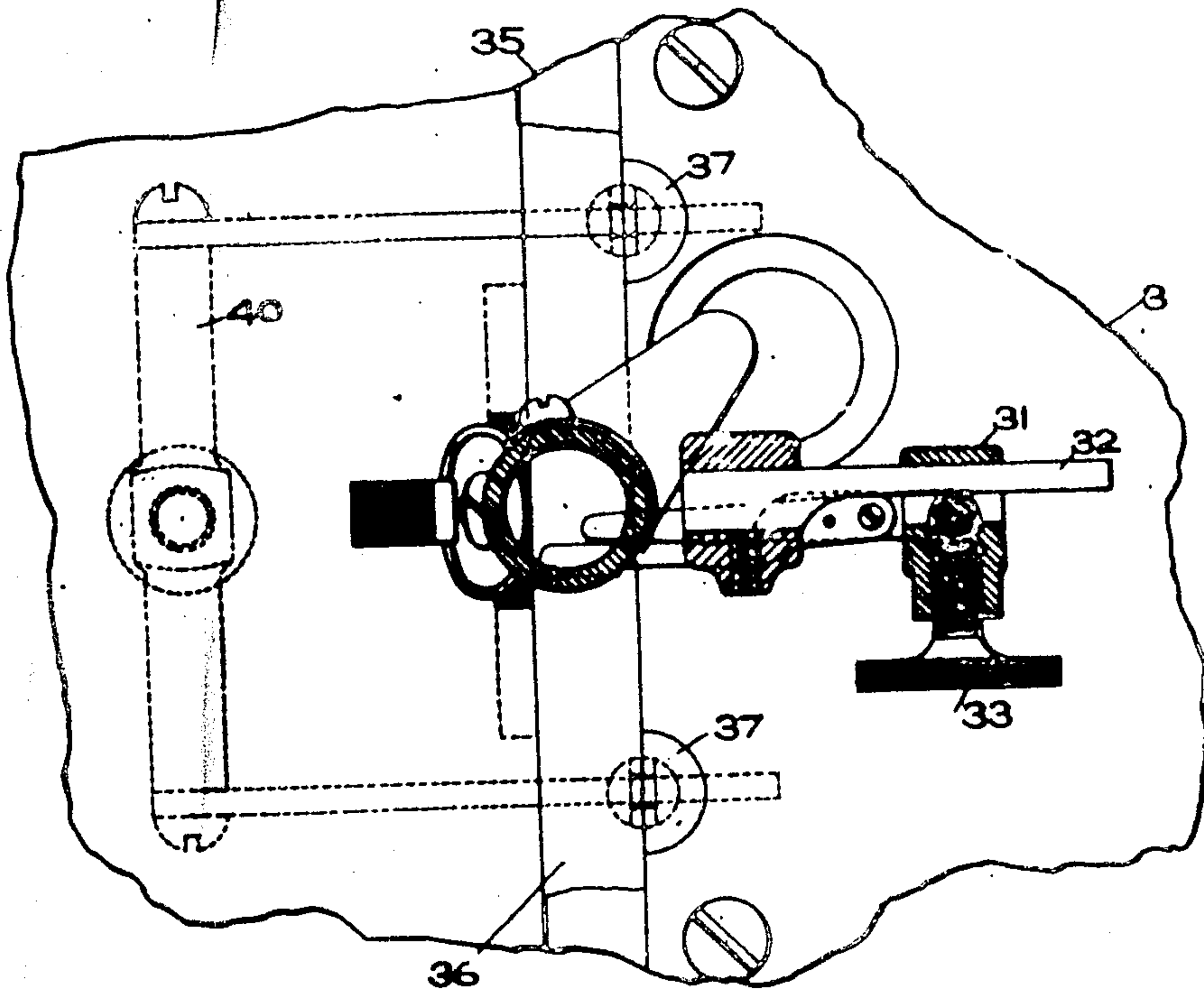
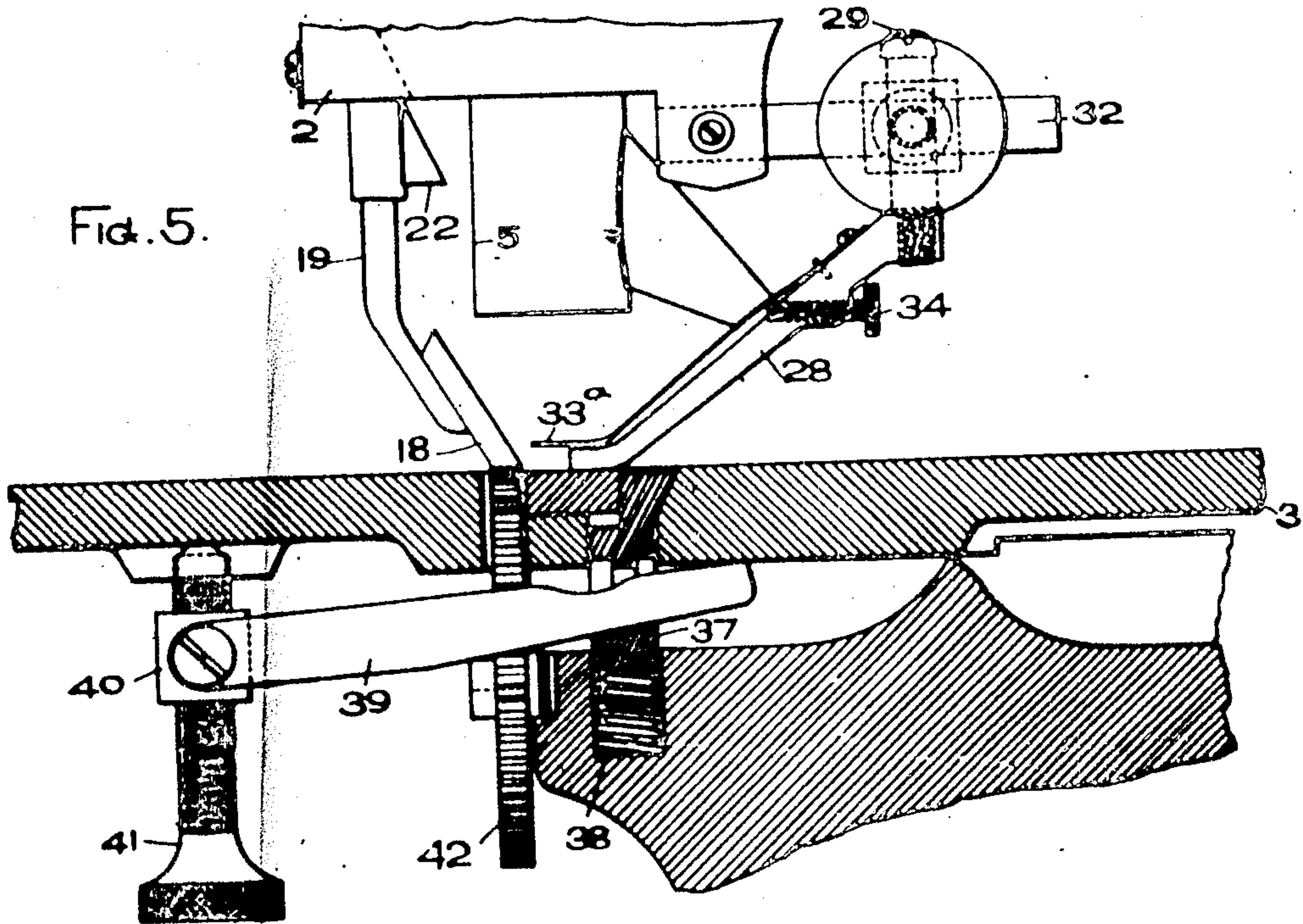
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LEATHER PUNCHING MACHINE.
APPLICATION FILED NOV. 29, 1903.

Patented Apr. 19, 1910.

5 SHEETS—SHEET 5.



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UNITED STATES PATENT OFFICE.

CHARLES P. STANBON, OF LYNN, MASSACHUSETTS.

LEATHER-PUNCHING MACHINE.

955,711.

Specification of Letters Patent.

Patented Apr. 19, 1910.

Application filed November 28, 1903. Serial No. 183,007.

To all whom it may concern:

Be it known that I, CHARLES P. STANBON, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Leather-Punching Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to leather punching machines and particularly to machines for forming ornamental perforations or cuts in the various parts of shoe uppers in order to give such parts a finished and pleasing appearance in the completed shoe.

The object of the invention is to provide a machine of the class referred to of improved construction and mode of operation.

Leather punching machines which are used to form ornamental perforations or cuts in the tips or other parts of a shoe upper usually comprise a reciprocating punch and means for intermittently feeding the work beneath the punch, and the various features of the present invention relate to certain improvements in the means for feeding and guiding the work beneath the punch and for holding it in proper position.

One feature of the invention consists in an improved means for supporting and actuating the presser foot which bears upon the work in proximity to the punch. In accordance with this feature of the invention the presser foot is mounted upon the lower end of a vertically movable rod and is arranged to bear against the work beneath the punch-stock upon which the punch is mounted and in close proximity to the punch, and means are provided for raising the rod and for moving its lower end laterally in order to remove the presser foot from beneath the punch-stock. The provision of means for moving the lower end of the rod, upon which the presser foot is mounted, laterally as it is raised allows the presser foot to bear upon the work close to the point at which it is acted upon by the punch and at the same time the presser foot can be raised clear of the work when desired without contacting with the punch-stock. In the preferred embodiment of this feature of the invention hereinafter described, the upper end of the rod upon which the presser foot is mounted is arranged to reciprocate through a pivoted

bearing and the rod is swung during its upward movement in order to remove the presser foot from beneath the punch stock by the engagement with a fixed part of the machine of a projection on the lower end of the rod. It will be understood that the rod may be otherwise mounted and actuated without departing from this feature of my invention broadly considered although the construction above referred to is the one which I prefer to use on account of its simplicity and ease and certainty of operation and is the best construction which I have been able to devise.

Another feature of the invention consists in an improved adjustable edge gage and means for locking it in adjusted position. In accordance with this feature of the invention the edge gage is so mounted and supported as to be capable of two adjustments, one toward and from the punch transversely to the line of feed and the other toward and from the punch in the line of feed, and a single means is provided for locking the edge gage in adjusted position. It is desirable in machines of this class that the edge gage be located as near as possible to the punch in order that the perforations or cuts may be located at the same distance from the edge of the work whether the edge of the work is straight or convexly or concavely curved. The provision of the edge gage above referred to, adjustable in two directions, and a single means for locking the gage in position, allows the operator to readily and quickly adjust the gage to bring it into the desired position whenever a change is made in the size or shape of the punch. The construction which I prefer to use and which embodies this feature of my invention in a simple and convenient form, comprises an edge gage formed upon or secured to an arm pivotally mounted in a block so as to be capable of a swinging movement to adjust the edge gage toward and from the punch in the line of feed, a support upon which the block is mounted so as to be capable of moving thereon to adjust the edge gage toward and from the punch transversely to the line of feed and a set screw for locking the block and arm in position.

Another feature of the invention consists in an improved means for securing a cutting block to the work support beneath the punch. It is necessary to change the position of the cutting block frequently in order

to bring a fresh surface beneath the punch, and in order to enable the operator to do this easily and quickly I provide a plurality of clamps for clamping the cutting block on the work support, and means conveniently accessible by the operator for simultaneously actuating the clamps. In the preferred form of this feature of my invention the cutting block is located in a slot in the work support, the clamps are mounted in holes in the work support and arranged to bear against the side of the cutting block, and the means for actuating the clamps is located beneath the work support. The means for actuating the clamps is thus easy of access by the operator and the clamps can be quickly actuated without removing any of the parts of the machine whenever it is desired to change the position of the cutting block.

Another feature of the invention consists in an improved means for intermittently feeding the work. In accordance with this feature of my invention feeding mechanism acting to feed the work intermittently to the punch is provided, and means controlled by the operator for varying the extent of the individual feed movements during the operation of the feeding mechanism. When the edge of the work being operated upon is curved, the work is swung by the operator as it is fed beneath the punch in order to bring the work into the proper position. The result of the swinging movements which are imparted to the work is to cause the edge of the work to be moved a greater or a less distance than the movement which is imparted to it by the feeding mechanism, a greater movement being imparted to the edge of the work when the edge is curved convexly and a less movement being imparted thereto when the edge is curved concavely. It will be evident that if the length of the individual feeding movements be kept constant the distances between successive perforations will vary, the perforations being placed at greater intervals when the edge of the work is convexly curved than when the edge of the work is straight or concavely curved. The provision of means under the control of the operator for varying the length of the individual feed movements enables the operator to increase the length of the feeding movements when the edge of the work is concavely curved and to decrease the length of the feeding movements when the edge of the work is convexly curved, thereby causing the perforations to be spaced at equal distances apart regardless of the curvature of the work. On account of the simplicity and compactness of such a construction and its certainty of operation, I prefer employing a feeding mechanism which comprises a feed wheel arranged to engage the work, and

mechanism for intermittently actuating the feeding wheel. In the specific embodiment of this feature of my invention hereinafter described the feed wheel is intermittently actuated through suitable connections from an oscillating lever provided with a fulcrum, the adjustment of which acts to vary the extent of the individual feed movements imparted to the feeding wheel and means are provided whereby the fulcrum can be adjusted to change the normal length of the individual feeding movements and by which the fulcrum can be moved by the operator to vary the length of the individual feeding movements during the operation of the machine. The arrangement of this oscillating lever and its adjustable fulcrum in a feeding mechanism, I believe to be new, irrespective of the particular form of feeding device or devices which are actuated from the lever, and I accordingly consider a feature of my invention to consist in a feeding mechanism for a leather punching machine consisting of a feeding device, an oscillating lever and suitable connections for intermittently actuating the feeding device, and an adjustable fulcrum for said lever, the adjustment of which varies the extent of the individual feeding movements imparted to the feeding device, whether means are provided for adjusting said fulcrum to change the normal length of the individual feed movements or means under the control of the operator for adjusting the fulcrum during the operation of the machine to vary the extent of the individual feed movements, or means for adjusting the fulcrum to accomplish both of these results.

In addition to the features of invention above referred to, the present invention also consists in certain devices, arrangements, and combinations of parts hereinafter described and claimed, the advantages of which will be obvious to those skilled in the art.

The various features of my invention will be clearly understood from the accompanying drawings, in which—

Figure 1 is a view in side elevation of a leather punching machine embodying the same in their preferred form; Fig. 2 is a view in front elevation of the machine illustrated in Fig. 1; Fig. 3 is a view in rear elevation of the machine, the driving shaft and the bracket in which the shaft is journaled being shown in section; Fig. 4 is a sectional plan view of the rear portion of the machine illustrating more particularly the construction and arrangement of the mechanism for actuating the feed wheel; Fig. 5 is a detail view partially in section illustrating the construction and arrangement of the parts in proximity to the punch, and Fig. 6 is a sectional plan view of the parts illustrated in Fig. 5.

The frame of the machine consists of a

base portion 1 and an overhanging head portion 2. Upon the base portion 1 a circular work supporting plate 3 is secured. The punch is indicated at 4 and is secured to the lower end of a punch-stock 5 mounted to reciprocate vertically in bearings in the head 2. A collar 6 is adjustably secured to the punch-stock 5 between its upper and lower bearings in the manner illustrated and described in my prior Patent No. 640,426, dated January 2, 1900. This collar is provided with a block pivotally mounted thereon which is engaged by the slot of an arm 7 secured upon the forward end of a rock shaft 8 journaled in bearings in the side of the head 2. The rear end of the shaft 8 is provided with an arm 9 which is connected by means of a rod 10 to a strap surrounding an eccentric 11 upon the main driving shaft 12 which is mounted in bearings in a bracket 13 secured to the frame of the machine. Through the connections above described the rock shaft 8 is actuated from the main driving shaft and vertical reciprocating movements are imparted to the punch-stock and to the punch.

A hand wheel and a series of belt wheels are loosely mounted upon the driving shaft 12 and are connected thereto by means of a clutch which is controlled by a bent lever 14 pivoted upon the bracket 13. The vertical arm of the lever 14 is provided at its upper end with a projection which engages a projection on one of the clutch members, the arrangement being such that when these projections are in engagement the belt pulleys are disconnected from the driving shaft. The projection on the vertical arm of the lever 14 is normally held in the path of movement of the projection on the clutch member by means of a spring-pressed pin 15 bearing against the vertical arm of the lever. The horizontal arm of the lever 14 is engaged by a pin bearing upon one end of a lever 16 pivoted upon the base of the machine, the other end of the lever 16 being connected by means of a chain 17 to a treadle and the construction being such that when the treadle is depressed by the operator the lever 14 is actuated to release the clutch and allow the belt pulleys to be connected to the driving shaft. The projection on the clutch member is so arranged that the belt pulleys are disconnected from the driving shaft when the punch stock is in its raised position, the machine being stopped with the punch raised from the work whenever the operator removes his foot from the treadle.

The work is supported upon the work support 3 and is fed intermittently beneath the punch by means of a feed wheel to be hereinafter referred to. In order to hold the work down upon the feed wheel and in position during the operation of the punch

a presser foot 18 is provided which, as illustrated, consists of a frusto-conical wheel arranged so that its conical surface contacts with the work above the feed wheel. The presser foot is journaled upon the lower end of a rod 19, the axis upon which it turns being at an angle to the surface of the work support 3, so that the presser foot extends beneath the punch stock and contacts with the work in close proximity to the punch. The rod 19 is mounted to move vertically in bearings in the head 2, the upper bearing consisting of a sleeve 20, through which the rod 19 passes, pivoted between ears projecting from the upper bearing for the punch-stock, and the lower bearing consisting of a slot in a projection from the lower bearing for the punch-stock through which a squared portion of the rod passes and in which the squared portion of the rod can have a lateral movement toward and from the punch-stock. When the rod 19 is in its lowest position with the presser foot in contact with the work, the lower end of the rod 19 is held pressed toward the punch-stock by means of a leaf spring 21 which bears against the squared portion of the rod. Near its lower end the rod 19 is provided with a projection 22 provided with an inclined surface which, as the rod 19 is raised, contacts with the lower bearing for the rod and swings the lower end of the rod laterally, so as to remove the presser foot from beneath the punch-stock. This swinging movement of the rod 19 is permitted by the pivotally mounted bearing 20 for the upper end of the rod. The lateral movement which is imparted to the presser foot as it is raised allows the presser foot to be located beneath the punch-stock when in contact with the work and in close proximity to the punch so that the work is securely held during the punching operation and the feeding devices engage the work as close as possible to the point at which it is operated upon by the punch. This is an advantage in this class of machines as thereby the liability of the work being displaced is reduced to a minimum, and smaller variations in the length of the feeding movements are required in order to cause the perforations to be spaced equal distances apart when the curvature of the edge of the work varies. The presser foot is held yieldingly in contact with the work by means of a spring 23 coiled around the rod 19 and interposed between the upper bearing for the rod and a collar 24 secured to the rod. The presser foot is raised, when desired, by means of a hand lever 25 pivoted to the head of the machine and connected at its forward end by means of a link 26 to the rod 19. A spring catch 27 is arranged to engage the lever 25 and hold the presser foot in its raised position.

As the work is fed beneath the punch, it is guided by means of an edge gage which, as shown, forms the forward end of an arm 28. This arm at its rear end is provided with a vertical stud 29 rigidly secured thereto. The stud 29 passes through an opening in a block 31 adjustably mounted upon a horizontal support 32 secured in a projection of the head 2 of the machine frame. A set screw 33 has a screw-threaded engagement with the block 31 and is arranged to bear against the stud 29 so that the set screw serves both to lock the stud to the block 31 and the block 31 to the support 32. When the set screw 33 is loosened therefore the block 31 can be moved on the block 32 to adjust the edge gage toward and from the punch in a direction transversely to the line of feed and the arm 28 can be swung to adjust the edge gage toward and from the punch in the line of feed, and when the set screw is tightened the edge gage is locked in its adjusted position. In order to prevent the edge of the work from riding over the edge gage a guard plate 33^a is provided. This plate is of spring metal and is secured upon the upper surface of the arm 28 and projects beyond the front end of the arm as illustrated in Fig. 5. In order to adjust the guard plate for different thicknesses of material an adjusting screw 34 is tapped into the arm 28 and arranged to bear against the under surface of the plate.

The work support 3 is provided in its upper surface with a slot 35 extending beneath the punch in the line of feed and in this slot is located a cutting block or strip 36 of brass or other suitable material. It is necessary to change the position of this block frequently in order to present a fresh surface to the action of the punch and to enable this to be easily and quickly accomplished the cutting block is held in position in the slot 35 by means of clamps 37 arranged to bear against one edge of the block. As shown these clamps are fitted in holes which extend through the work support. The lower ends of the clamps are received in recesses in the base of the machine and rest upon coiled springs 38, the tendency of which is to raise the clamps so as to release the cutting block. The upper ends of the clamps are provided with inclined surfaces which engage correspondingly inclined surfaces of the holes in the work support, the action of these surfaces being to force the clamps against the cutting block when the clamps are drawn downwardly. Each clamp is provided with a slot 39 pass. The rear ends of these levers bear against the under surface of the work support and the front ends of the levers are connected by means of a bar 40 to which the ends of the levers are pivoted. The levers

are actuated to draw the clamps 37 downwardly so as to clamp the cutting block by means of a set screw 41 tapped through the bar 40 and bearing at its upper end against the lower surface of the work support. This set screw, as will be apparent from an inspection of Figs. 1 and 5, is located beneath the work support where it will not interfere with the operator but is conveniently accessible from the front of the machine. By merely turning this set screw the clamps can be actuated and the cutting block adjusted as often as desired without loss of time.

The work is fed intermittently beneath the punch by means of a feeding wheel 42 which projects upwardly through a slot in the work support and against which the work is held by the presser foot as has been described. This feeding wheel is secured upon the front end of a shaft 43 which is mounted in bearings in the base of the machine. The rear bearing for the shaft 43 is indicated at 44 (see more particularly Fig. 4) and is pivotally supported by pivot studs 45 so as to be capable of swinging in a vertical plane. The bearing for the front end of the shaft is indicated at 46 and is adjustably supported by means of a set screw 47^a by means of which the bearing can be raised or lowered to cause the feeding wheel to project the desired distance above the surface of the work support. The feeding wheel is intermittently rotated by means of mechanism which comprises an oscillating lever 47 and connections between the lever and the shaft 43. This mechanism is best illustrated in Fig. 4 and will be clearly understood from an inspection of this figure taken in connection with Figs. 1 and 3. The lever 47 passes through a block 48 pivotally mounted upon a block 49, the pivotal connection of the block 48 with the block 49 forming the fulcrum of the lever. One end of the lever 47 is pivotally connected to a plunger 49^a mounted to reciprocate in bearings in the machine frame. This plunger is provided with a roll which bears against a cam 50 on the main driving shaft and the roll is maintained in contact with the cam by means of a spring 51 coiled around the rod and interposed between one of the bearings for the rod and a shoulder on the rod. Through this plunger the lever 47 is oscillated from the driving shaft. The other end of the lever 47 is connected by means of a link 52 to one arm of a lever 53 pivotally mounted upon the frame of the machine. The lever 53 is provided with another arm on the same side of its pivot which is connected by means of a link 54 to the strap of a roller clutch device mounted upon the rear end of the shaft 43. This clutch device is of well-known construction and will be readily understood from the illustration contained in Fig. 3 without further description, it being

merely sufficient to state that the shaft 43 is clutched to the strap during the movement of the strap in one direction and is unclutched from the strap during its movement in the opposite direction, the action being similar to that of a pawl and ratchet mechanism.

It will be evident that the extent of the individual feeding movements imparted to the feed wheel will depend upon the position of the fulcrum of the lever 47 and if the fulcrum is adjusted the length of the individual feeding movements will be correspondingly varied. In order to adjust the normal length of the individual feeding movements the block 49 is adjustably mounted upon a rod 55, the block being provided with a split collar which embraces the rod and being clamped to the rod by a clamping screw 56.

In order to vary the length of the individual feeding movements during the operation of the machine, it is necessary, in the construction illustrated, to move the fulcrum of the lever 47 and to accomplish this result the rod 55 to which the block 49 is secured is mounted in and forms a part of a frame 57 which extends transversely across the machine and is pivotally mounted on the bracket 13 by means of pivot pins 58 which are so arranged as to allow the frame 57 to swing in a horizontal plane. The frame 57 is provided with a downwardly projected arm 59 to which is bolted the rear end of a rod 60 which extends through the base of the machine to a position in which it can be conveniently actuated by the operator. By means of this rod the operator is enabled to swing the frame 57 in either direction and thereby move the blocks 48 and 49 so as to adjust the fulcrum of the lever 47 during the operation of the machine. The extent of the movements which may be imparted to the frame 57 by the operator is limited by adjustable stops 61 screwing through projections on the base of the machine and arranged on opposite sides of an arm 62 projecting from the frame 57. The frame 57 is normally held in its central position by means of spring-pressed plungers 63 mounted in bearings in the base of the machine and arranged upon opposite sides of the arm 59 of the frame 57. Each of these plungers is surrounded by a coiled spring 64 interposed between a shoulder on the plunger and a removable bearing block 65 and is provided at its outer end with stop nuts 66.

The operation of the machine illustrated in the drawings and above specifically described has been indicated in connection with the description of the construction and arrangement of its various parts and will be readily understood by those skilled in the art.

Having thus indicated the nature and scope of my invention and having specifically described a machine embodying the various features thereof in their preferred form, I claim as new and desire to secure by Letters Patent of the United States.

1. A leather punching machine, having, in combination, a vertically reciprocating punch-stock, means for actuating the same, a punch mounted on the lower end of the punch-stock, a vertically movable rod provided at its lower end with a presser foot arranged to contact with the work and in close proximity to the punch, and means for raising the rod and moving it laterally to remove the presser foot from beneath the punch-stock, substantially as described.

2. A leather punching machine, having, in combination, a vertically reciprocating punch-stock, means for actuating the same, a punch mounted on the lower end of the punch-stock, a vertically movable rod provided at its lower end with a presser foot arranged to contact with the work below the punch-stock and in close proximity to the punch, a pivoted bearing for the upper end of the rod, means for raising the rod, and a projection on the rod arranged to engage a part of the machine and swing the rod to remove the presser foot from beneath the punch-stock, substantially as described.

3. A leather punching machine, having, in combination, a punch, means for actuating the same, feeding mechanism acting to feed the work intermittently to the punch, a work support, a cutting block, a plurality of clamps for clamping the cutting block on the work support, and means conveniently accessible by the operator for simultaneously actuating said clamps, substantially as described.

4. A leather punching machine, having, in combination, a punch, means for actuating the same, a slotted work support, a cutting block loosely fitting the slot in the work support, clamps mounted in holes in the work support arranged to bear against the side of the cutting block, and means for actuating said clamps, substantially as described.

5. A leather punching machine, having, in combination, a punch, means for actuating the same, a slotted work support, a cutting block loosely fitting the slot in the work support, a clamp mounted in a hole in the work support arranged to engage the side of the cutting block, said clamp and hole being provided with contacting inclined surfaces acting to force the clamp against the cutting block when the clamp is drawn into the hole, a lever located beneath the work support, and engaging the clamp, and a set screw for actuating the lever to draw the clamp into the hole, substantially as described.

6. A leather punching machine, having, in combination, a punch, means for actuating the same, a slotted work support, a cutting block movable in the slotted work support, clamps for clamping the cutting block on the work support, and means located beneath the work support and conveniently accessible by the operator for actuating said clamps, substantially as described.
7. A leather punching machine, having, in combination, a punch, means for actuating the same, an arm provided with an edge gage, a block in which the arm is pivotally mounted so as to be capable of an adjustment to move the edge gage toward and from the punch in the line of feed, a support upon which the block is mounted so as to be capable of an adjustment to move the edge gage toward and from the punch transversely to the line of feed and a single set screw for locking the block and arm in adjusted position, substantially as described.
8. A leather punching machine, having, in combination, a punch, means for actuating the same, a feeding device, a lever and suitable connections for intermittently actuating the feeding device, means for oscillating the lever, and an adjustable normally spring-controlled fulcrum for said lever, the adjustment of which varies the extent of the individual feed movements imparted to the feeding device, substantially as described.
9. A leather punching machine, having, in combination, a punch, means for actuating the same, a feeding device, a lever and suitable connections for intermittently actuating the feeding device, means for oscillating the lever, a fulcrum for said lever, the adjustment of which varies the extent of the individual feed movements imparted to the feeding device, a support upon which said fulcrum is adjustably mounted, and means under the control of the operator for moving said support to adjust said fulcrum during the operation of the machine, substantially as described.
10. A leather punching machine, having, in combination, a punch, means for actuating the same, a feeding device, a lever and suitable connections for intermittently actuating the feeding device, means for oscillating the lever, a fulcrum for said lever the adjustment of which varies the extent of the individual feed movements imparted to the feeding device, and means under the control of the operator for adjusting said fulcrum during the operation of the machine, substantially as described.
11. A leather punching machine, having, in combination, a punch, means for actuating the same, a feeding device, a lever and suitable connections for intermittently actuating the feeding device, means for oscillating the lever, an adjustable fulcrum for said lever, and means under the control of the operator for adjusting said fulcrum during the operation of the machine to increase or decrease the extent of the individual feeding movements imparted to the feeding device, substantially as described.
12. A leather punching machine comprising, in combination, a punch, means for actuating the same, a feeding device 42, a lever 47 connected to the feeding device, a plunger 49^a actuating the lever, blocks 48 and 49, a rod 60, and connections between it and the block 49.
13. A leather punching machine comprising, in combination, a punch, means for actuating the same, a feeding device 42, a roller clutch device for actuating the feeding device, a lever 47, a cam 50, a plunger 49^a operated by the cam for actuating lever 47, and means for shifting the fulcrum of lever 47.
14. A leather punching machine comprising, in combination, a punch, actuating means therefor, a feeding device 42, a roller clutch device for operating the feeding device, a lever 47, a fulcrum block 48, an operator controlled rod 60, and connections for shifting the fulcrum block 48, as specified.
15. A leather punching machine having, in combination, a vertically reciprocating punch, means for actuating the same, a vertically movable rod provided with a presser-foot arranged to contact with the work in close proximity to the punch, means for imparting a rising and lateral movement to said presser-foot, a vertically adjustable feeding device, an adjustable edge gage, a lever and suitable connections for intermittently actuating the feeding device, means for oscillating the lever, a fulcrum for said lever, the adjustment of which varies the extent of the individual feed movement imparted to the feeding device, and means under the control of the operator for adjusting said fulcrum during the operation of the machine.
16. A machine for working on leather having, in combination, a leather working tool, means to actuate the same, a presser-foot, a work supporting feeding device, means comprising a roller clutch, a lever and suitable connections for the same to intermittently actuate said feeding device.
17. A machine for working on leather having, in combination, a leather working tool, means to actuate the same, a presser-foot, a work supporting feeding device, an edge gage, a guard plate, and means comprising a roller clutch, a lever and suitable connections for imparting an intermittent feeding movement to said feeding device, and means to vary the extent of the feeding movement of said feeding device.
18. A leather working machine comprising

ing, in combination, a leather working tool, means to actuate the same, a presser-foot, a work supporting feeding device, an edge gage, a guard plate, means comprising a roller clutch, a lever, cam and spring actuating means and suitable connections for imparting an intermittent feeding movement to said feeding device, and means comprising an adjustable connection between the cam and the clutch for varying the extent of the feeding movement of said feeding device.

19. A machine for acting on leather comprising, in combination, progressively operative working means to act on the leather, feeding means for presenting successive parts of the work to said working means, the same comprising a feeding lever and means to vary the effective length thereof for adjusting the length of feed, and means coöperating with the feeding means whereby the work is engaged on opposite sides.

20. A leather working machine comprising, in combination, a leather working tool, means for actuating the same, an edge gage adjustable in a plane parallel with the line of feed and also transversely thereto by one and the same locking means.

21. In a leather working machine a sup-

port, a feeding device carried by an adjustable shaft one end of which is mounted in a pivotally secured bearing, a tool, means to operate the same and means to position and guide the work to said tool.

22. In a leather working machine the combination of a tool, means to actuate the same, a work support, a work feeding device 42, a clutch device for actuating the same comprising a lever 47 carried by a fulcrum member 48 and means for adjusting the position of said member including a forked frame member 37 adapted to be adjusted by the operator during the operation of the machine.

23. A leather working machine having in combination a leather working tool, means for operating the same, a work positioning member, means to impart upward and lateral movement thereto, means to feed the work to said tool and means to change at will the extent of said feeding movement.

In testimony whereof I affix my signature, in presence of two witnesses.

CHARLES P. STANBON.

Witnesses:

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ALFRED H. HILDRETH.