No. 837,093. PATENTED NOV. 27, 1906.

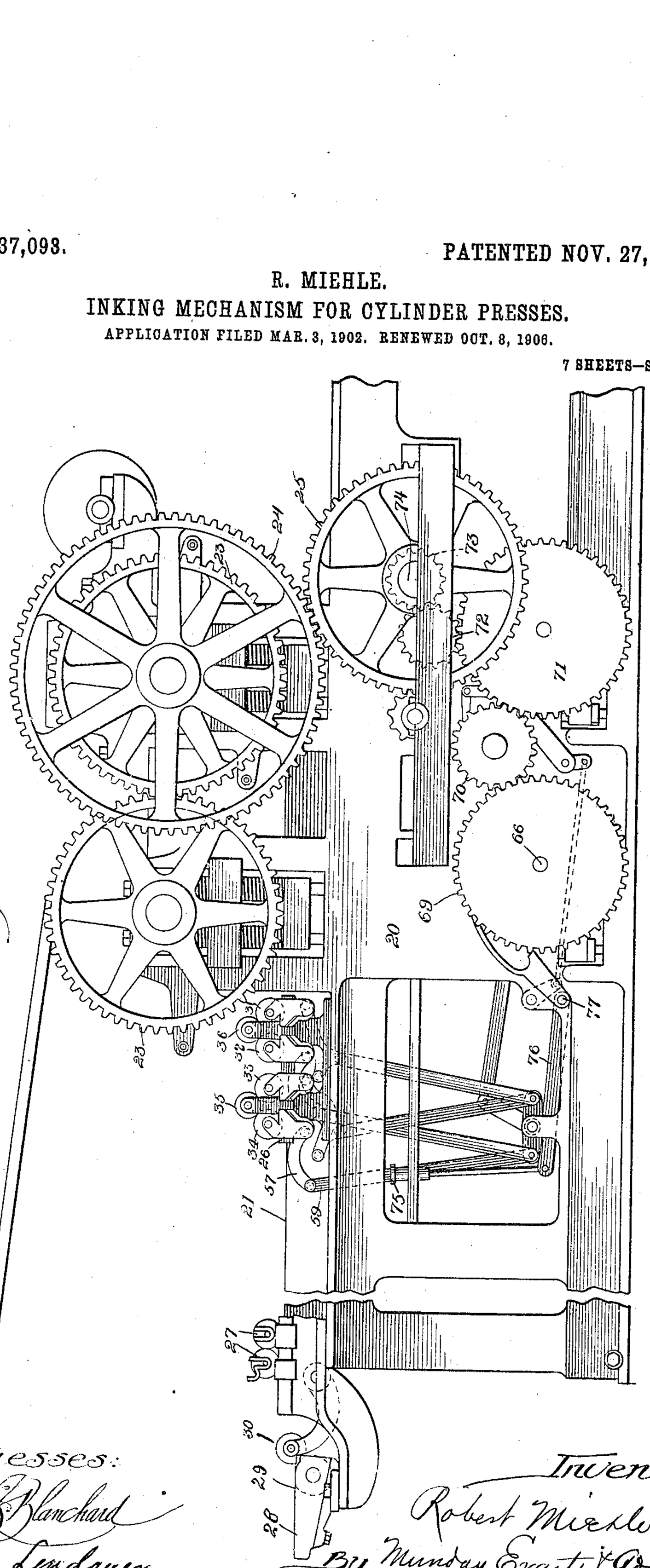
R. MIEHLE.

INKING MECHANISM FOR CYLINDER PRESSES.

APPLICATION FILED MAR. 3, 1902. RENEWED OCT. 8, 1906.

7 SHEETS—SHEET 1.

Fig. 1.



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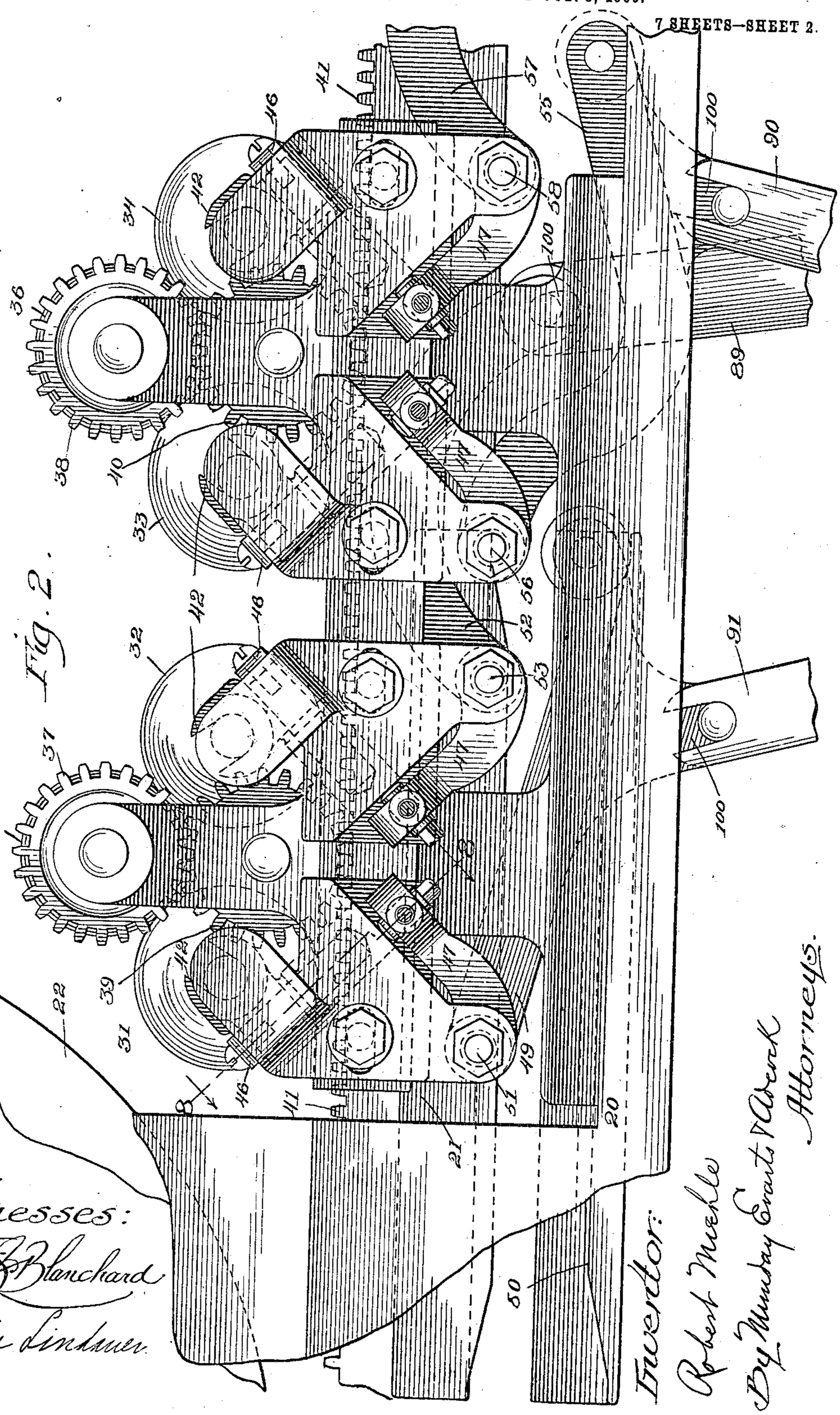

Fig. 2.

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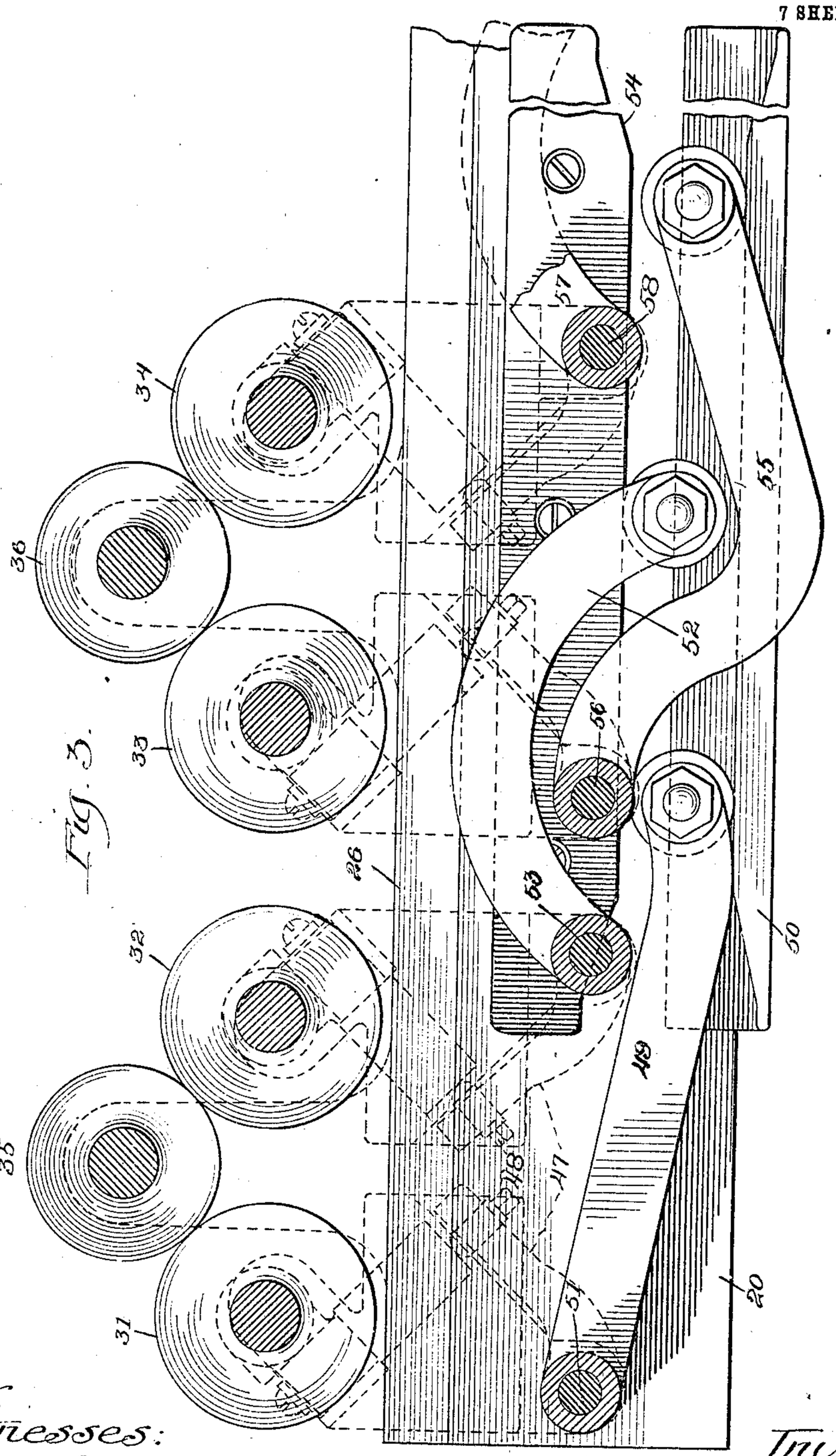

Fig. 3.

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7 SHEETS—SHEET 4.

Fig. 8.

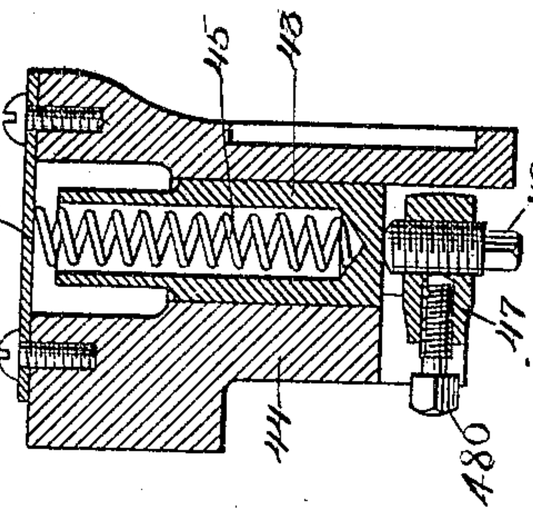


Fig. 9.

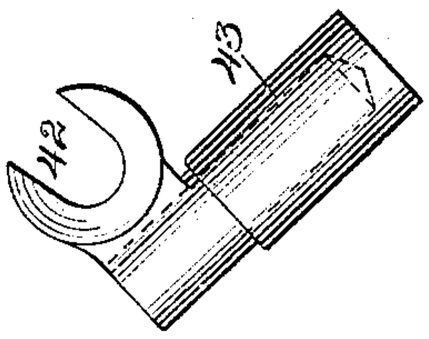


Fig. 10.

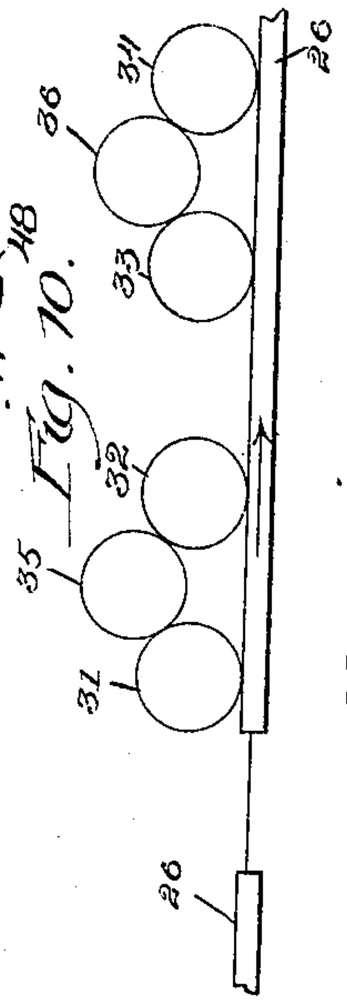


Fig. 13.

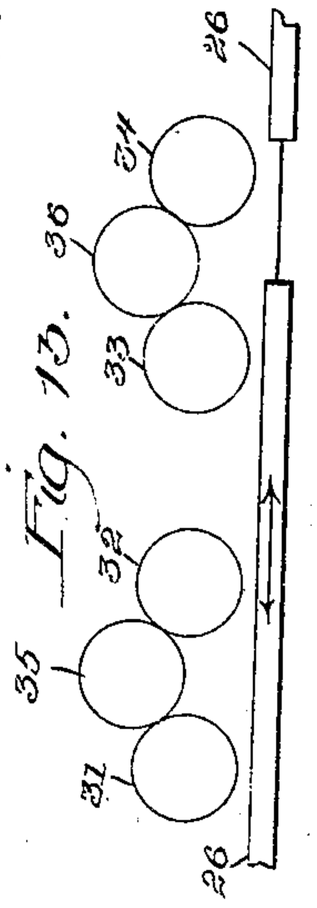


Fig. 12.

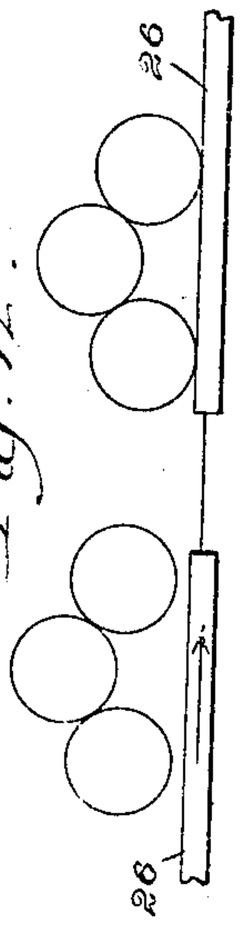


Fig. 4.

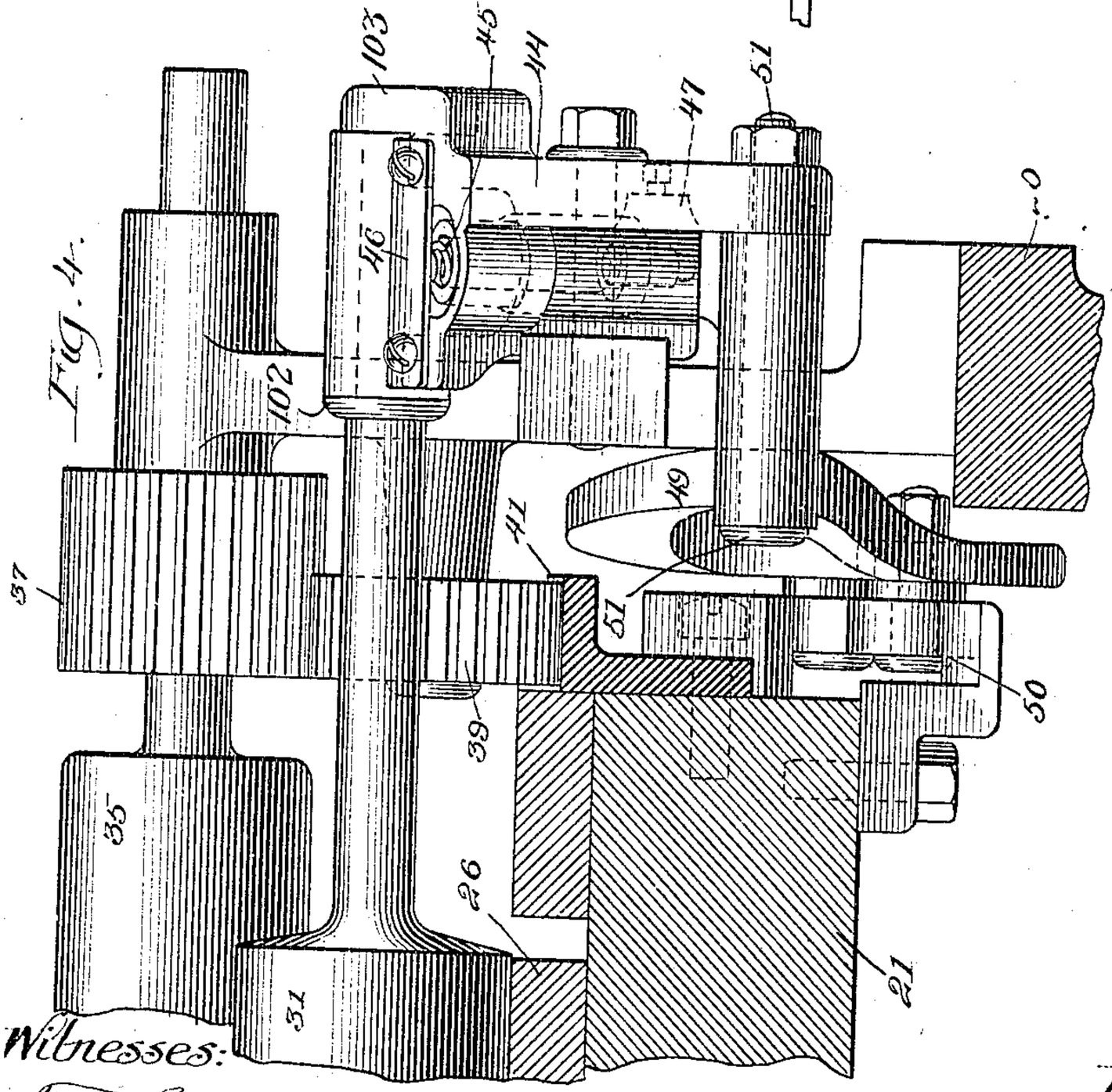
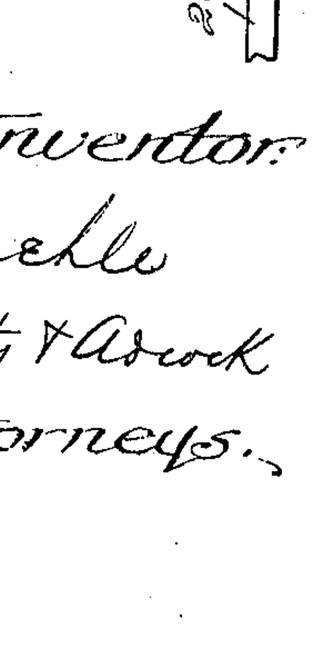


Fig. 11.



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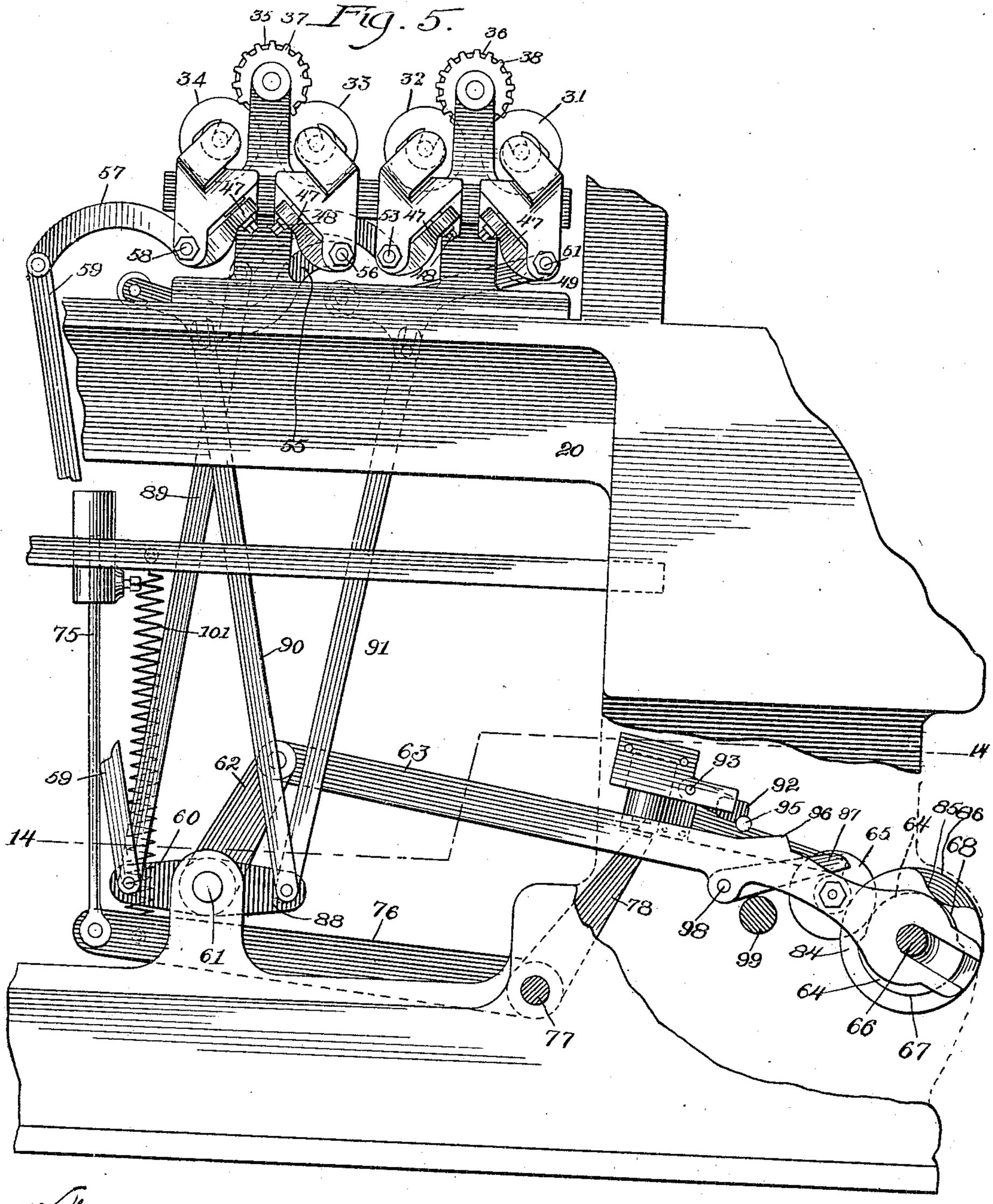
7 SHEETS—SHEET 5.

Fig. 5.



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7 SHEETS—SHEET 6.

Fig. 7.

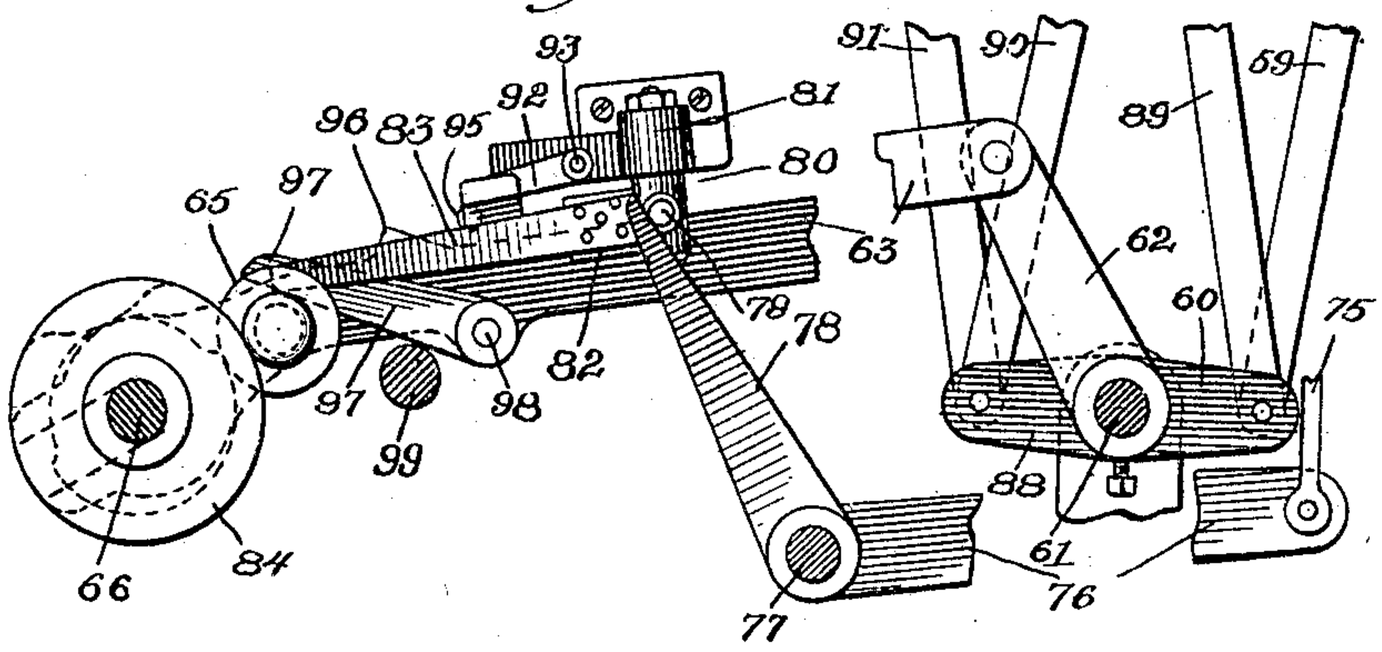

Fig. 6.

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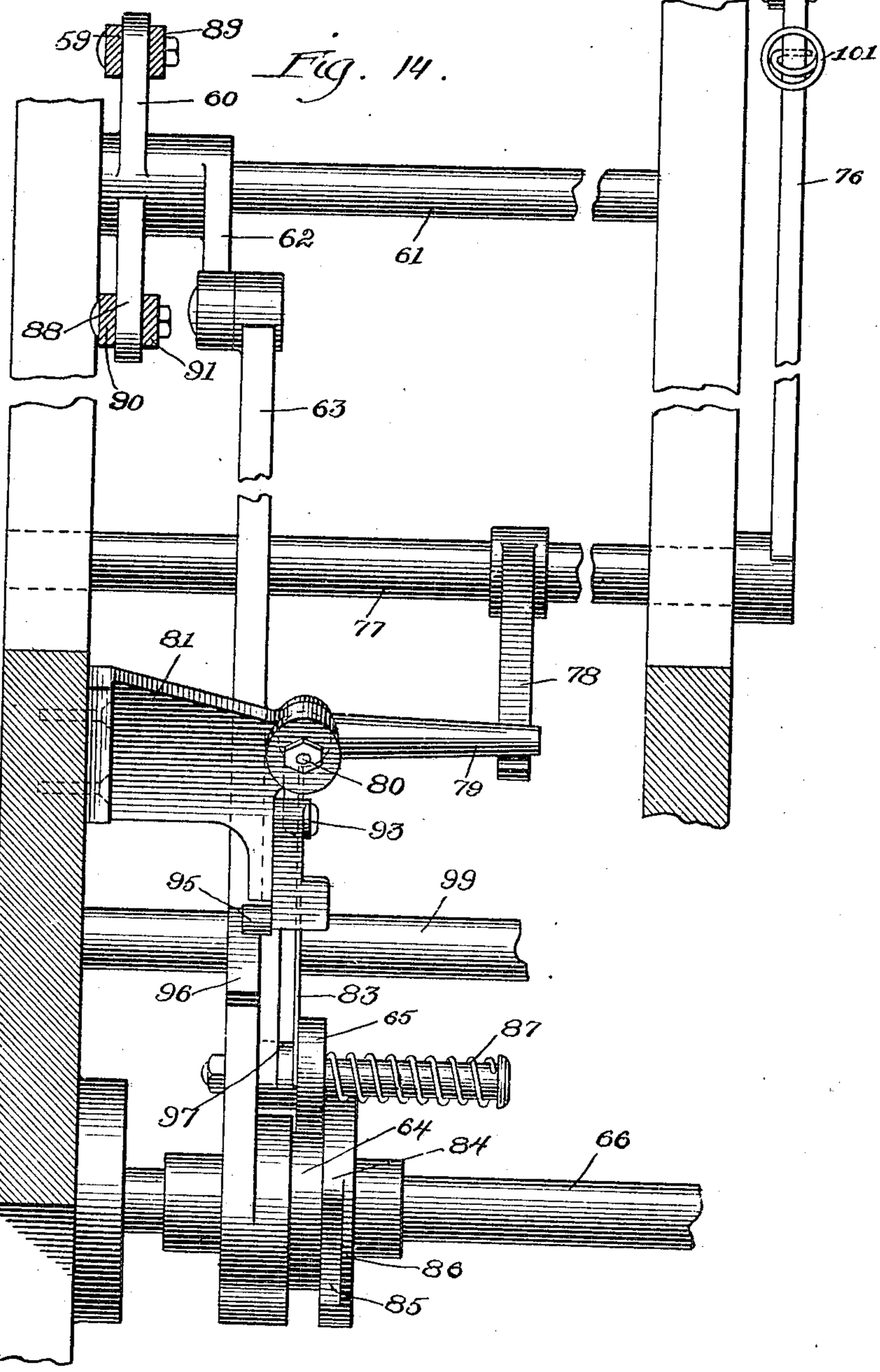
7 SHEETS—SHEET 7.

Fig. 14.



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UNITED STATES PATENT OFFICE.

ROBERT MIEHLE, OF CHICAGO, ILLINOIS.

INKING MECHANISM FOR CYLINDER-PRESSES.

No. 837,093. Specification of Letters Patent. Patented Nov. 27, 1906.

Application filed March 3, 1902. Renewed October 8, 1906. Serial No. 338,026.

To all whom it may concern:

Be it known that I, ROBERT MIEHLE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Inking Mechanism for Cylinder-Presses, of which the following is a specification.

This invention relates to mechanism for controlling the rolls whereby the type-forms are inked in that class of bed-and-cylinder presses having a separate set or group of inking-rolls for inking each form.

As usually constructed one roll of each group has not been raised with the others; but I deem it desirable to raise this roll also in the manner hereinafter stated, as thereby a more perfect and even distribution of the ink over the form is obtained.

One feature of my invention is found in the construction of the means employed to operate this roll and also in the improved construction of the devices for lifting the several ink-rolls at the proper times.

Another feature relates to the provision of means for tripping or lifting the entire group or groups of ink-rolls when for any reason that is necessary or desirable.

Still another feature relates to the provision of means whereby both the cylinder and the ink-rolls may be simultaneously tripped or lifted out of action.

The nature of the invention is fully set forth below and is also fully disclosed in the accompanying drawings, in which latter—

Figure 1 is a partial side elevation of a press embodying my present improvements. Fig. 2 is an enlarged side elevation of one of the groups of inking-rollers and their immediate actuating devices. Fig. 3 is a longitudinal vertical section of the parts shown at Fig. 2. Fig. 4 is a partial transverse vertical section of the same parts. Fig. 5 is an enlarged partial longitudinal section showing the cam-and-lever mechanism for operating the end roller of the group and also the mechanism for tripping all the group. Fig. 6 is a transverse section of the parts shown at Fig. 5. Fig. 7 is a detail elevation showing the side opposite to that shown in Fig. 5 of some of the parts. Fig. 8 is a section on the line 8 8 of Fig. 2. Fig. 9 is a detail view of one of the roller-bearings. Figs. 10 to 13, inclusive, are diagrams illustrating the operation of the invention. Fig. 14 is a horizontal section on the line 14 14 of Fig. 5.

In said drawings, 20 represents the frame of the press; 21, the reciprocating bed; 22, one of the cylinders; 23 23, the gears on the cylinder-shafts; 24 25, the gears for carrying power to the cylinders; 26 26, the type-forms arranged on the bed 21 in the usual manner, one in advance of the other; 27 27, the ink-rolls for distributing the ink on the ink-table; 28, the ink-fountain; 29, the fountain-roll, and 30 the transfer-roll.

31 32 33 34 represent two pairs of form-inking rolls, each pair being accompanied by a rider-roll 35 or 36 and the two groups forming the ink-applying means of one of the forms. The rider-rolls are provided with actuating-gears 37 and 38, respectively, and these mesh with other gears 39 and 40, which are driven by the rack 41, attached to the reciprocating bed 21, carrying the type-forms and ink-tables.

The rolls 31 and 32 are supported in such manner as to permit their being moved bodily in divergent directions, so they may clear the type-forms as the latter move beneath them at times when no application of ink is desired, and the same is true of rolls 33 and 34. To that end these various rolls are supported as follows: The roll 31, for instance, is supported at each end in an open bearing 42, formed upon one side of a short hollow stud or cylinder 43, sliding in an inclined direction in a stationary block 44. The cylinder is inclined in the proper direction to permit the necessary movement by roll 31 to take place without destroying its contact with the rider 35. The cylinder contains a coiled spring 45, the lower end of which rests upon the closed bottom of the cylinder, and the upper end is confined by a bar 46, secured to the block 44 over the open top of the cylinder and over the spring. The spring normally projects above the cylinder, as seen at Fig. 8, and this permits the latter to move toward the bar 46 until it strikes said bar, and in so doing the spring is compressed. The cylinder is moved to lift the roll by the lever 47 having a set-screw 48 in its vibrating end setting under the lower end of the cylinder and joined at its other end to the pivoted end of a cam-lever 49 and oper-

ated by a top-faced cam 50, the pivot of the cam-lever being shown at 51. The cam is attached to the type-bed and moved therewith and is made sloping at both ends, as plainly shown at Fig. 3, so that it serves to actuate the lever and lift the roll during each forward and each backward stroke, and so it will allow the roll to be returned after each raising movement by the spring 45. A binding-screw 480 bears on the set-screw 48, as plainly shown. This mechanism is of course duplicated at the other side of the press.

The roll 32 is provided with bearings like those described, except that they are oppositely inclined, and they are actuated by similar cam-levers 47, having also set-screws 48 and joined to cam-levers 52, pivoted at 53 and actuated by underfaced cams 54, also attached to and moving with the bed. The roll 33 is supported by bearings in all respects like those of roll 31 and actuated by similar levers 47 48, and such levers are joined to cam-levers 55, bearing upon cams 50 and pivoted at 56.

The operation with respect to rolls 32 and 33 is precisely like that occurring in the case of roll 31 and needs no further explanation, the mechanism acting both to lift the rolls and allow them to fall at each stroke or movement of the bed in each direction.

In the case of roll 34, which is the roll which in the general construction of these presses has heretofore not been raised, I provide separate means for lifting it above the forms. The bearings of the roll 34 are similar to those of roll 32, and it is lifted by similar levers and screws 47 48; but power is communicated to said levers by means different from those used with the other rolls—to wit, by levers 57, pivoted at 58 and fast to the levers 47—and said levers 57 are actuated by the following mechanism: Between the outer ends of levers 57 and crank-arms 60, which are rigidly mounted upon a rock-shaft 61, extending transversely of the press, are links 59, and secured to this same rock-shaft near one end thereof is a crank-arm 62, pivotally joined to which is a longitudinally-moving bar 63, the farther end of which carries a roller 65, bearing upon the peripheral cam 64, mounted upon a shaft 66. The cam has a raised portion 67 and a depressed portion 68, and when the latter is passing the roller the thrust of the bar is preferably sustained by the forked end of the lever bearing against the shaft in order that the roller may be easily shifted laterally, as hereinafter stated. The shaft 66 is constantly rotated by a train of gearing 69, 70, 71, 72, and 73, of which the gearing 69 is on shaft 66 and 73 on the main shaft 74. The cam 64 is so timed by its arrangement on the shaft as to cause the roller 65 to ride on the raised portion of the cam when the ink-roll 34 is to be lifted above the forms, such result being due to the actuation of the bar 63 and the intervening mechanism at such times by the cam and roller.

The mechanism described in the last paragraph serves to raise the ink-roll in question once at each complete forward-and-back movement of the bed while the press is running regularly; but I also provide in conjunction therewith means whereby all the ink-rolls in the group or set embracing the roll 34 may be tripped either for a single forward-and-back movement of the bed or for a plurality of such movements, as desired. This mechanism is the following: At 75 is a foot-lever located conveniently for operation by the attendant and joined at its lower end to an arm 76, rigid upon a rock-shaft 77. This shaft also carries an arm or lever 78, which at its upper end bears against an outstanding horizontal arm 79, supported on a rocking vertical shaft 80, supported in a stationary box or bearing 81. Projecting from the side of shaft 80 is a short rigid arm 82, and riveted to arm 82 is a long blade 83, preferably of flexible metal, the outer end of which is placed against the side of roller 65. The cam 64, already mentioned, is formed upon one side of a disk 84, having its periphery partially cut away, so as to form a gap or depression 85, the deepest part of which coincides with the lower part 68 of the cam 64. The gap 85 slopes gently outward at each of its ends from this deepest part to the periphery of the disk, and a portion 86 of the periphery at the side of the gap is left intact, as plainly shown at Figs. 5 and 6. The roller 65 is free to move laterally on its supporting-stud in obedience to the pressure which may be caused thereon by the blade 83, as hereinafter explained, and a spring 87, coiled on the stud, acts upon the roller in opposition to said blade. From this construction it will be seen that the attendant by operating said foot-lever causes the blade-shaft 80 to turn, so as to create pressure by the blade against the side of roller 65, and this pressure will shift the roller over into the gap 85 in the cam-disk as soon as the gap comes in register with the roller. As soon as the roller is shifted into the gap it rides upon the incline thereof onto the periphery of the disk, and by so doing actuates the bar 63 in the same way as when it rides on the raised portion of the cam; but the actuation of the lever is considerably greater in extent in that case and is sufficient to rock the shaft 61 far enough to cause the tripping or lifting of all the ink-rolls. It does this through the arms 60, already mentioned, and the arms 88, projecting from the opposite side of rock-shaft 61. The arms 60 are connected to levers 57, operating roll 34, as already stated, and are also connected to cam-levers 52 of roll 32 by the rod 89, and the arms 88 are connected

to cam-levers 49 of roll 31 and to cam-levers 55 of roll 33 by rods 90 and 91, respectively. The arms 60 depress the cam-levers to which they are joined, as will be understood from the drawings.

The roller 65 when shifted, as already described, may ride on the cam-disk until the depression 85 completes a revolution, so that the roller may reënter it and then be shifted back to its normal position, or the roller may be forced so far onto the periphery of the disk that it will ride upon the rim 86 instead of reëntering the depression 85. In the first case the ink-rolls will be relieved from the control of the tripping devices at the end of the revolution of the cam-disk, and in the other case they will be retained in the tripped position so long as the roller 65 is compelled to ride on the cam-disk.

In order to relieve the operator from the necessity of keeping his foot on the foot-lever until the tripping mechanism has acted or entered fully upon its work, I provide a gravitating-latch 92, stationarily pivoted at 93 and resting upon shifting blade 83. This latch has an offset 94 on its under surface, which when the blade is shifted, as above stated, engages the blade and holds it in its changed or operating position until the projection 95 on the swinging end of the latch encounters the riser or cam 96 on bar 63 and is lifted thereby, so as to free the blade. The latch cannot be thus raised by the riser until the bar 63 has been moved back by reason of the roller's riding on the outer part of the cam-disk, and hence not until after the tripping mechanism has begun to operate, and it will be noticed from this that the operator need not hold his foot on the lever until the tripping action has taken place, because when he depresses the foot-lever he either causes the blade to shift the roller at once or, if the roller happens to be against the large diameter part of the cam 84 at the time, he stores up power in the blade, which will be retained by the latch until it can be expended in shifting the roller as soon as the gap 85 comes in register, the tripping operation being wholly automatic after the depression of the foot-lever and the blade continuing under tension until the roller enters the gap.

To prevent the spring 87 from forcing the roller back off the cam-disk, the restraining power caused by the depressed foot-lever being now withdrawn by the removal of the operator's foot, I employ a second latch 97, pivoted to bar 63 at 98 and resting normally at its free end on the hub of roller 65. This latch is adapted to fall between the hub of the roller and the bar 63 when the roller is shifted, and thus serve to prevent the return of the roller under the power of spring 87; but the latch cannot thus act until the bar 63 has moved far enough to clear the latch from the stationary stop-bar 99, located below the latch, and of course the latch will be lifted from its acting position by said stop-bar whenever the bar 63 returns to the position of Fig. 5. This latch therefore enters between the hub and bar 63 as soon as the roller is shifted and has actuated the lever and remains in that position until the roller reënters the gap 85 in the cam-disk and allows the lever to move back to its starting position.

When the operator desires to retain the rolls in their tripped position during a plurality of bed movements, he either retains his foot on the foot-lever during such movements or he locks the foot-lever down in its depressed position. By so doing the blade retains its pressure against the roller 65 even after the roller has moved onto the periphery of the cam-disk, and thereby shifts it far enough to insure its riding on the rim 86 instead of entering the gap 85. Obviously the roller cannot shift back when it is thus restrained by power from the foot-lever, and consequently the ink-rolls may in this way be held out of action as long as desired.

While the press is running properly and no tripping is desired, I prevent any action by the rods 89, 90, and 91 on the ink-rolls to which they are connected by providing for lost motion between said rods and the respective levers operated by them, as seen at 100.

The ink-roll-tripping mechanism described is preferably connected with the cylinder-tripping mechanism, and, indeed, the foot-lever, the lever 76, the cam-shaft 66, and the gears 69, 70, and 71 are part of the regular cylinder-tripping mechanism of the press. It will thus be seen that the attendant when he operates the foot-lever not only trips the cylinder or cylinders, but the ink-rolls as well.

In the diagrammatic views, Fig. 10 shows all the rolls as being lowered into bearing contact with the form which they are intended to ink. Fig. 11 shows the form as having moved away from the first pair of rolls, and that pair is raised to avoid contact with the other form. Fig. 12 shows the form as having moved still farther, and Fig. 13 shows the form as having reached the limit of its stroke and all the rolls as raised.

It will be noticed that the rollers which are supported in bearings 42 have shoulders 102 in contact with the inner ends of the bearings; also, that the supports 43 of the bearings are cylindrical and free to turn in blocks 44 and are located at one side of the plane of the roller-journals. It results from these features of construction that if the rollers have any endwise play or movement such play or movement is liable to cause the bearings 42 and their supports to twist and turn in blocks 44, and thus create unnecessary friction be-

tween the bearings and the journals. To prevent any such endwise play or movement, I provide stops 103 opposite the end of each journal, as plainly shown at Fig. 4. These stops are preferably integral with the blocks 44, by which they are supported, and they are wholly independent of the bearings 42. By thus locating the inclined supports in a plane entirely lateral of the roller-journals instead of a plane coincident with that of the journals I am enabled to give the supports all the length needed and at the same time gain the needed room at the lower ends of the supports for the adjusting-screws 48 in the ends of the levers 47 and also to avoid any interference with each other by adjacent and converging levers 47, such as would take place if the supports 43 were in planes concentric with the roller-journals. This will be best understood from Fig. 2.

The blocks 44 are held in position by the screws 86, and the openings in the blocks through which the screws pass are elongated (see Fig. 2) to allow the adjustment of the blocks in a horizontal direction. The cam-lever pivots 51 are supported by the blocks and are adjusted, therefore, with them. Spring 101 returns the lever 76 after it has been operated by the foot.

I claim—

1. The combination with the bed and the ink-rolls 31, 32, 33 and 34, of levers for raising said rolls individually, cams on the bed for operating the levers of three of the rolls, a moving cam mounted in stationary bearings for operating the lever of the other roll, and means for tripping all the rolls connected to and operating said levers, substantially as specified.

2. The combination with the bed and the ink-rolls, of cams borne upon the bed, stationarily-pivoted levers whereby said cams operate three of said rolls, a moving cam mounted in stationary bearings and intervening mechanism for independently operating the fourth roll, substantially as specified.

3. The combination with the bed and the ink-rolls, of a top-faced cam 50 and levers 49 and 55 for lifting two of the rolls, a bottom-faced cam and lever 52 for lifting a third roll, separate means independent of the bed for lifting the fourth roll, and tripping mechanism for all the rolls, substantially as specified.

4. The combination with the ink-rolls 31, 32, 33 and 34, of mechanism for raising and lowering said rolls, the mechanisms for rolls 31, 32 and 33 being actuated by cams carried by the bed, and that for roll 34 being actuated by a rotating cam independent of the bed, substantially as specified.

5. The combination with the set of ink-rolls of levers for intermittently lifting the rolls when the press is running regularly, cam mechanism for actuating said levers, and means for tripping the rolls at will, consisting of a driven cam, mechanical connections whereby the cam actuates the levers, and means whereby the tripping means may be kept in action as long as desired, substantially as specified.

6. The combination with the set of ink-rolls and levers for lifting the rolls when the press is running regularly, of means for tripping the rolls at will, consisting of a driven cam, mechanical connections whereby the cam is enabled to actuate said levers, and means for controlling said connections so that the cam causes the tripping of the rolls for a single or plurality of bed movements as desired, substantially as specified.

7. The combination of the ink-rolls, of tripping mechanism embracing a cam and cam-disk, a roller riding on the cam and disk and adapted to be shifted thereon, and a spring device for shifting said roller, substantially as specified.

8. The combination with the ink-rolls, of tripping mechanism embracing a shifting cam-roller, a device for shifting said roller, means for locking said device temporarily in acting position, and means acting to lock the roller in its shifted position prior to the release of the shifting device, substantially as specified.

9. The combination with the ink-rolls, of tripping mechanism embracing a cam and cam-disk, a roller riding on the cam and disk and adapted to be shifted thereon, a device for shifting said roller, and means for temporarily locking said shifting device in its acting position, substantially as specified.

10. The combination with the ink-rolls, of tripping mechanism comprising a cam 64 and disk having a peripheral depression 85, a roller riding on said cam and disk and shiftable into said depression, and means for shifting said roller, substantially as specified.

11. The combination with the ink-rolls, of tripping mechanism comprising a cam 64 and disk having a peripheral depression 85 and an uncut rim 13 at one side of said depression, a roller riding on the cam and shiftable into said depression and also adapted to ride on the disk and over said rim, and means for shifting said roller, substantially as specified.

12. The combination with the ink-rolls and means for tripping the first three rolls regularly, of levers for tripping the fourth roll regularly, levers for tripping the other rolls at will, a rock-shaft to which all said levers are connected, a cam and connections for operating said rock-shaft, and means for controlling said connections whereby the cam is caused to trip either the fourth roll regularly or trip all the rolls for any length of time desired, substantially as specified.

13. The combination with the bed and set of ink-rolls, of levers and cam mechanism for lifting three of the rolls, a separate cam and

levers for lifting the fourth roll, and means for tripping the set of rolls at will, such means embracing a cam, and mechanical connections whereby it actuates said roll-levers, substantially as specified.

14. The combination with the ink-rolls of levers for tripping the rolls individually, some of said levers also lifting the last roll of the set in the normal operation of the press, a rock-shaft to which said levers are joined and a constantly-moving cam mechanically connected and actuating said rock-shaft, said cam having two operating-faces one for operating said last roll normally and the other for tripping the set of rolls, substantially as specified.

15. The combination with the ink-rolls, of mechanism for tripping the rolls optionally, embracing a foot-lever, a shifting blade 83, and a gravitating latch 92 acting on said blade and insuring proper action of the mechanism so that the operator need not retain his foot on the lever after the latch has engaged the blade, substantially as specified.

16. The combination with the cam, shifting roller, the spring 87 acting on the roller, and the foot-lever and connections whereby the operator shifts the roller, of a restraining-latch 97, substantially as specified.

17. The combination with the ink-rolls, of mechanism for lifting them while the press is running normally and mechanism embracing a constantly-rotating cam for causing the optional tripping of the rolls, said cam also actuating the lifting devices of one of the rolls in its normal operation, and imparting an increased extent of movement when the rolls are tripped optionally, substantially as specified.

18. The combination with the ink-rollers, of the bearings therefor, the supports for the bearings located at one side of the plane of the roller-journals, and stops at the end of the roller-journals, substantially as specified.

19. The combination with the ink-rollers, of the bearings therefor, cylindrical supports for said bearings, stationary blocks having sockets for said supports, and stops on said blocks at the end of each roller-journal, substantially as specified.

20. The combination with the roller-bearings 42 of a pair of rollers and the inclined and converging supports therefor, such supports being located at one side of the plane of the roller-journals, of cam-levers acting on the lower ends of said supports, substantially as specified.

21. The combination with the roller-bearings 42 of a pair of rollers and the inclined and converging supports therefor, such supports being located at one side of the plane of the roller-journals, of cam-levers acting on the lower ends of said supports and provided with adjustable contact-screws 48, substantially as specified.

22. The combination with the ink-roller and its bearing 42, of a support for said bearing, a block having a socket for the bearing-support, tripping-levers for lifting the support, and a spring for depressing the support, located in the support, substantially as specified.

23. The combination with the ink-roller and its bearing 42, of a support for said bearing, a block having a socket for the bearing-support, means for lifting the support, a bar 46 secured to said block and a spring for depressing the support, located in the support, and confined between the bottom of the support and bar 46, substantially as specified.

24. The combination with the ink-roller and its bearing 42, of a support for said bearing, a block having a socket for the bearing-support, tripping-levers for lifting the support, and a spring compressed by the lifting of the support and acting to depress it when the lifting power is withdrawn, substantially as specified.

25. The combination with the roller-bearing 42 and its rising and falling support 43 located laterally of the bearing, of the elbow cam-lever for imparting the rising movement, and the adjustable contact-screw 48 in the end of the lever by which the extent of the rise may be regulated, substantially as specified.

26. The roller-bearing and its laterally-located support, in combination with a block having a socket in which the support is movably held, a lever pivoted to said block and acting to lift the bearing-support, and an adjustable fastening for said block, substantially as specified.

27. The roller-bearing and its laterally-located support 43, in combination with an adjustable block 44 having a socket for the support 43, and a lever pivoted to the same block and operating the bearing-support, substantially as specified.

28. In mechanism for tripping the ink-rollers, a multiple-faced cam for actuating the lifting devices of the rollers, and a roller riding on the cam and carrying motion to the lifting devices, said roller being shiftable by the operator so that it may cause the tripping at will of the set of rollers, substantially as specified.

29. In mechanism for tripping the ink-rollers, the combination of the lever 63 carrying a shiftable roller 65, a cam 64 upon which said roller 65 normally bears, a disk 84 having a depression 85 in its periphery, and means whereby the attendant may shift said roller into said depression so it may ride on the disk, and thereby actuate the lever in tripping the set of rollers, substantially as specified.

30. In mechanism for tripping the ink-rolls, a multiple-faced cam for actuating the lifting devices of the rolls, said lifting de-

vices, a roller riding on the cam and carrying motion therefrom to the lifting devices, and means whereby the operator may change the relative positions of the cam and roller at will so as to cause the tripping of the set of rolls, substantially as specified.

31. In mechanism for tripping the ink-rolls, a multiple-faced cam for actuating the lifting devices of the rolls, said lifting devices, a roller riding on the cam and carrying motion therefrom to the lifting devices, and means whereby the operator may at will change the relative positions of the cam and roller from their normal position in which they trip one of the ink-rolls to another position in which they trip the set of rolls, substantially as specified.

32. The combination with the set of ink-rolls, of levers and cams for normally tripping three of the rolls, a multiple-faced cam, and lever mechanism having a roller riding on the cam whereby the cam normally trips the fourth roll, lever connections from the cam to the first-mentioned rolls, and means whereby the relative positions of the cam and roller may be changed and cause the tripping at will of all the rolls, substantially as specified.

33. The combination in a printing-press with a set of ink-rolls, of power mechanism for normally tripping a portion of the rolls, power mechanism for normally tripping the remaining roll, and power mechanism for tripping all the rolls at will, substantially as specified.

34. The combination with the levers for tripping the ink-rollers, of a cam having two acting faces, and a contact device connected to the levers and bearing on the cam, and serving in one position to trip one of the rollers, and movable at will to another position in which it trips the set of rollers, substantially as specified.

35. The combination with the levers for tripping the ink-rollers, of a cam and shifting contact device bearing thereon and acting in the normal position of the contact to lift one of the rollers and in its shifted position to lift the set of rollers, substantially as specified.

36. The combination with the levers for tripping the ink-rollers of a continuously-driven cam and a device bearing on the cam and shiftable with reference thereto, the device in its normal position acting to trip one roller and in its shifted position to trip the set of rollers, substantially as specified.

37. The combination with the bed and ink-rolls, of a top-faced cam operatively connected to and acting to lift a portion of the rolls, and a bottom-faced cam operatively connected to and acting to lift another of the rolls.

38. The combination with the bed and the ink-rolls for inking the form, of mechanism on the bed for raising and lowering some of the rolls, and a cam mechanism independent of the bed for raising and lowering another one or more of the rolls.

ROBERT MIEHLE.

Witnesses:
H. M. MUNDAY,
EDW. S. EVARTS.