

No. 733,078.

PATENTED JULY 7, 1903.

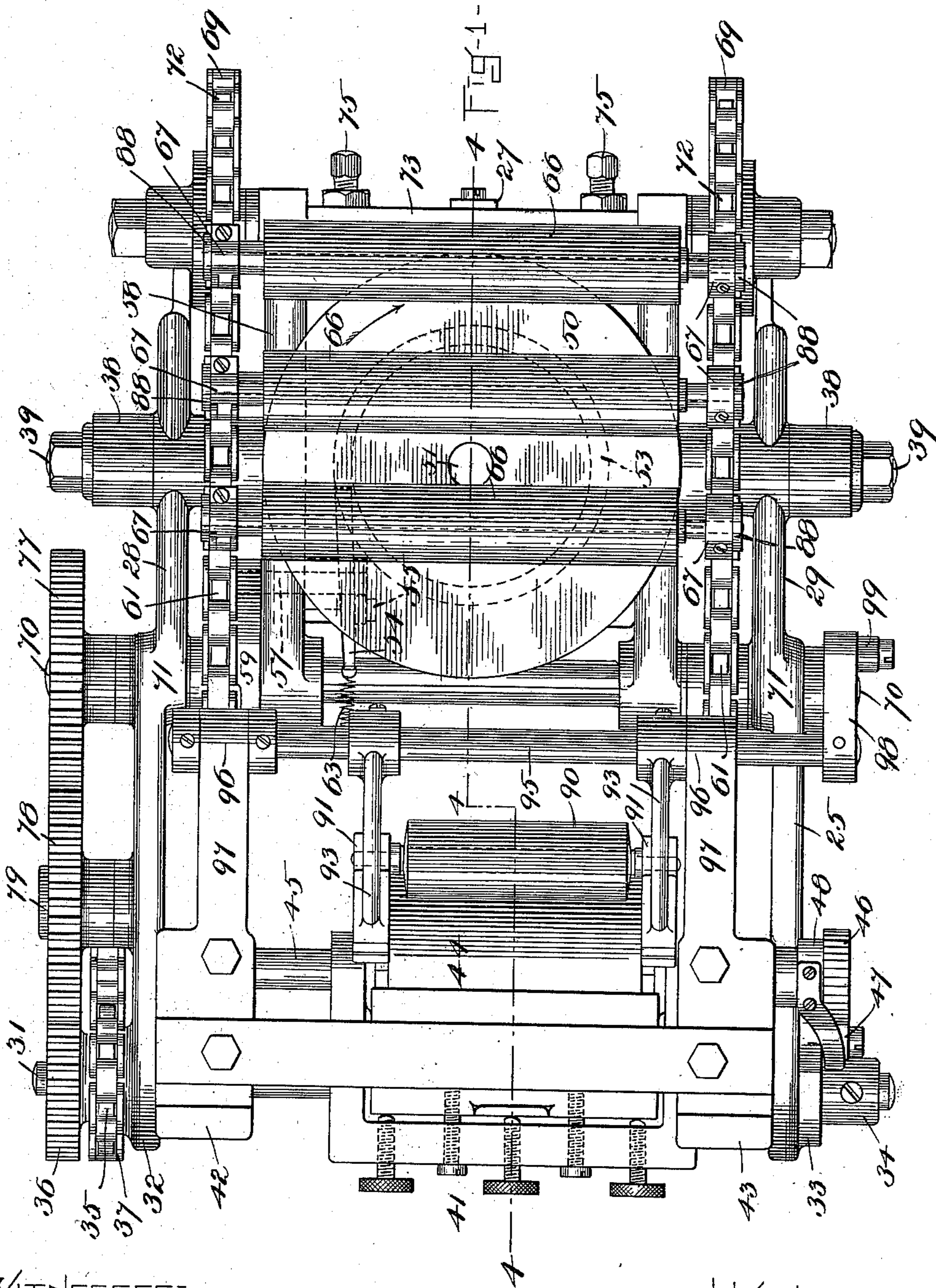
G. H. PIERCE.

INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 1.



WITNESSES:

Louis A. Jones.  
Franklin E. Low.

INVENTOR:

George H. Pierce.

by his Attorney, Charles S. Gooding.

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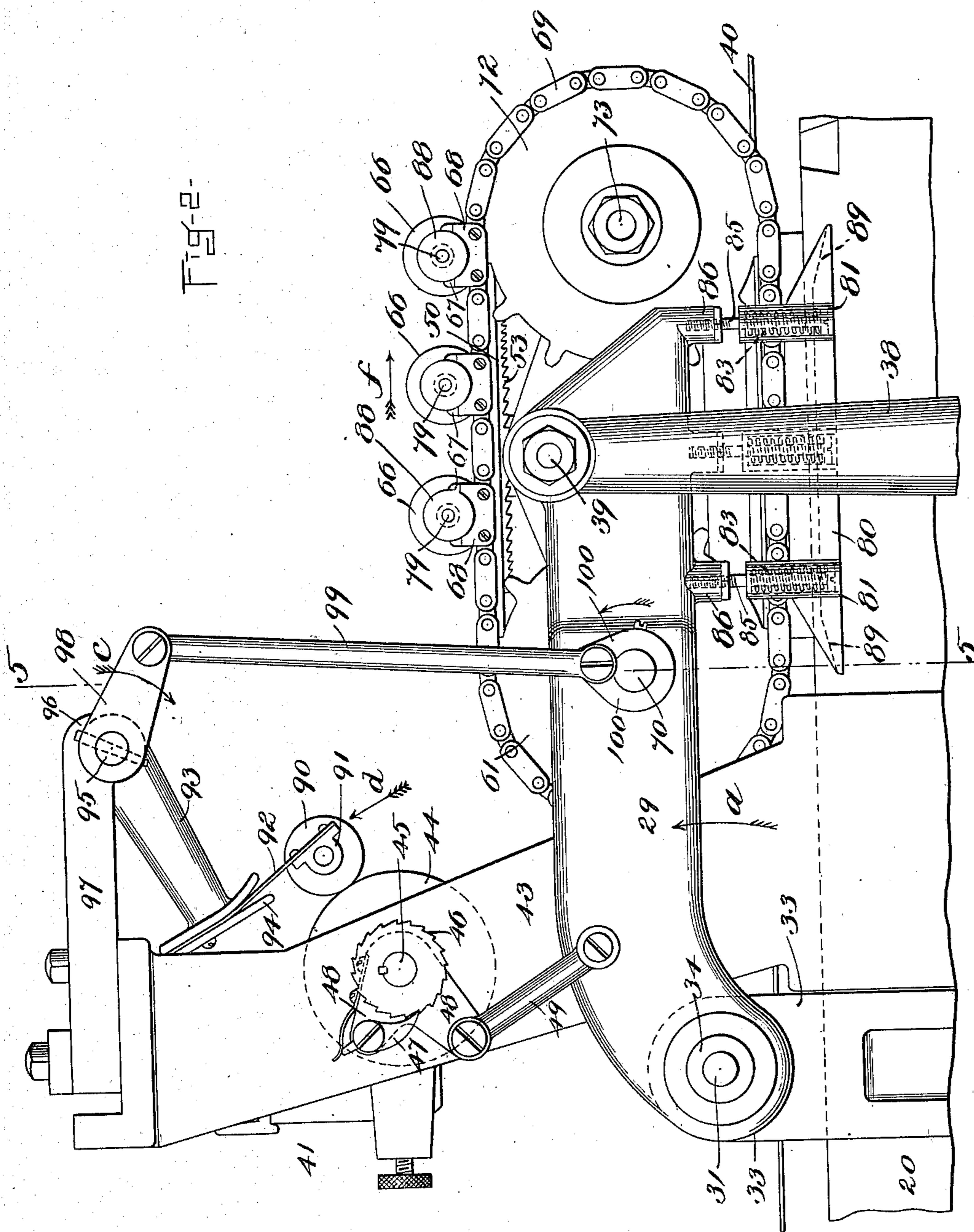
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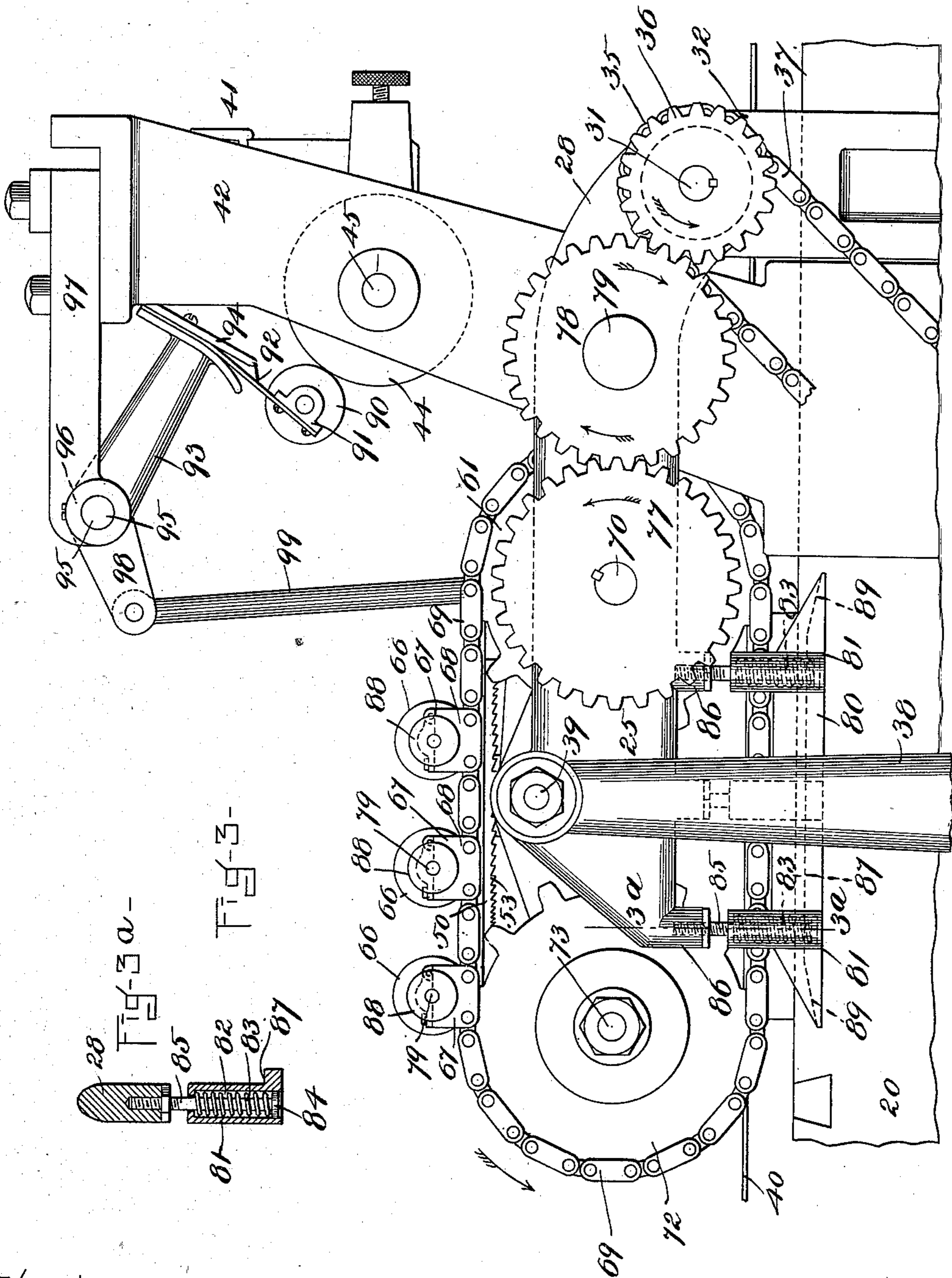
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13 SHEETS—SHEET 3.



WITNESSES:

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No. 733,078.

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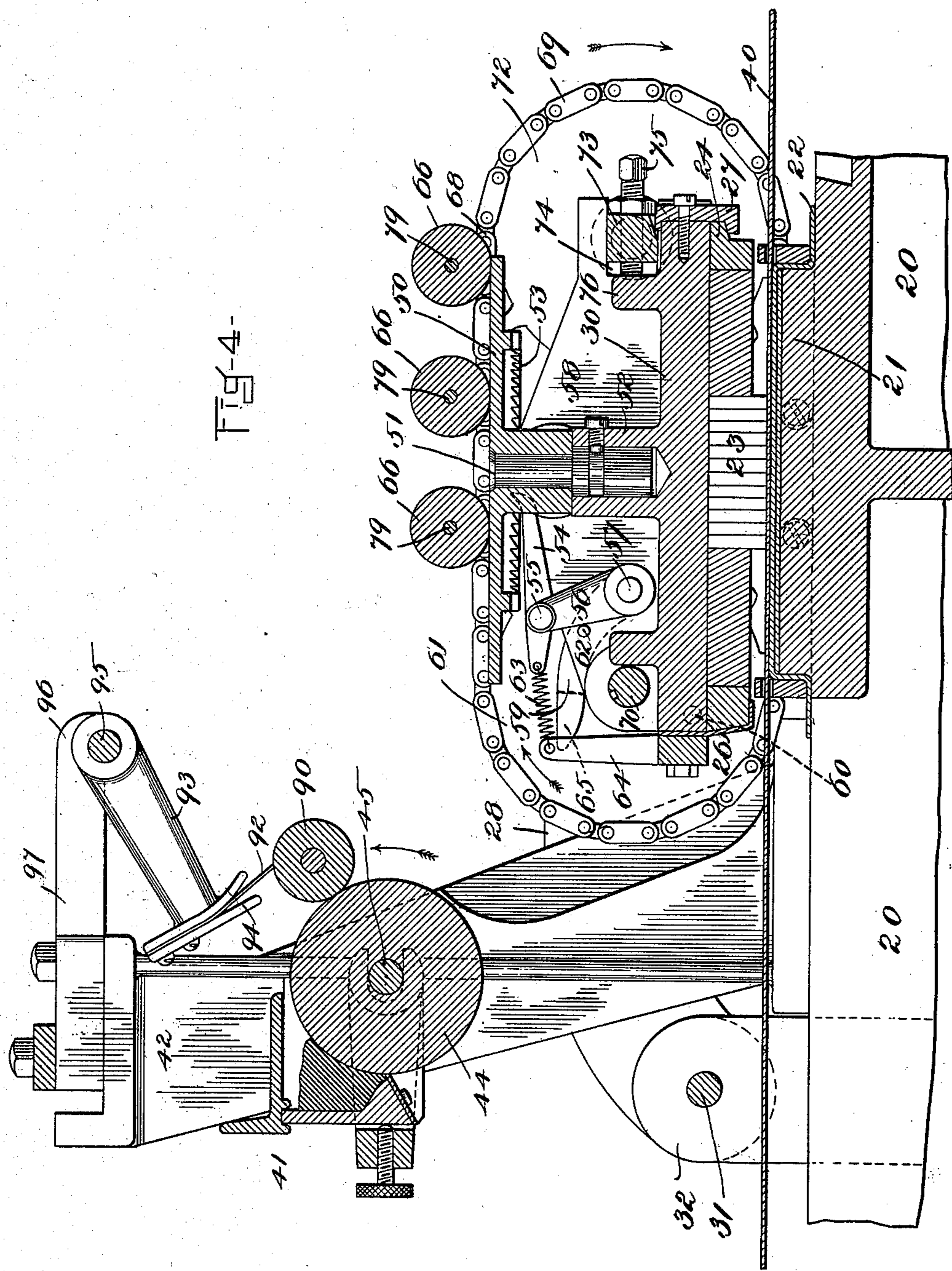
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NO MODEL.

13 SHEETS—SHEET 4.



WITNESSES:

Louis A. Jones  
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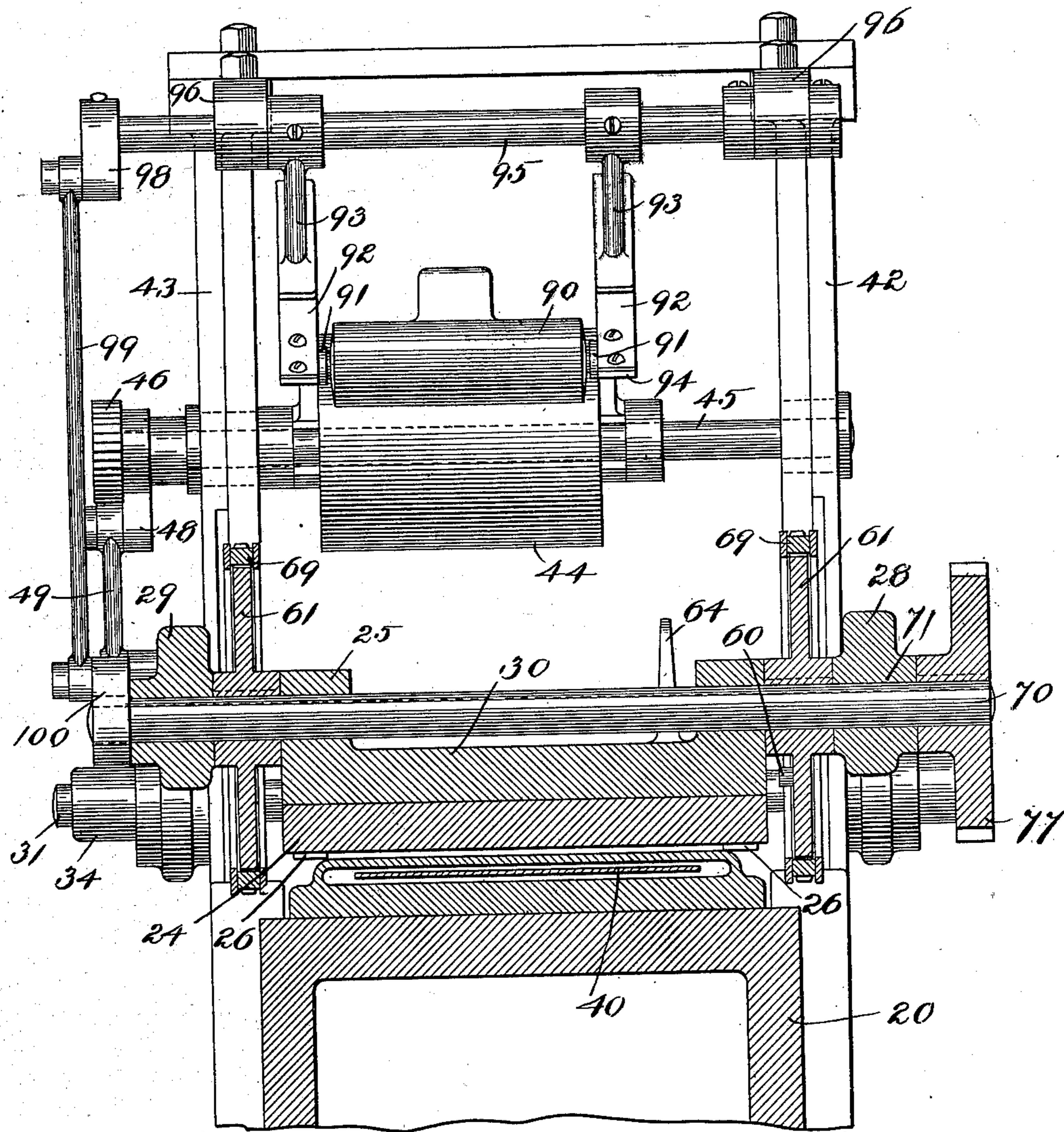
G. H. PIERCE.

INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 5.



WITNESSES:

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Fig-5

by his Attorney,

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Charles S. Gooding

No. 733,078.

PATENTED JULY 7, 1903.

G. H. PIERCE.

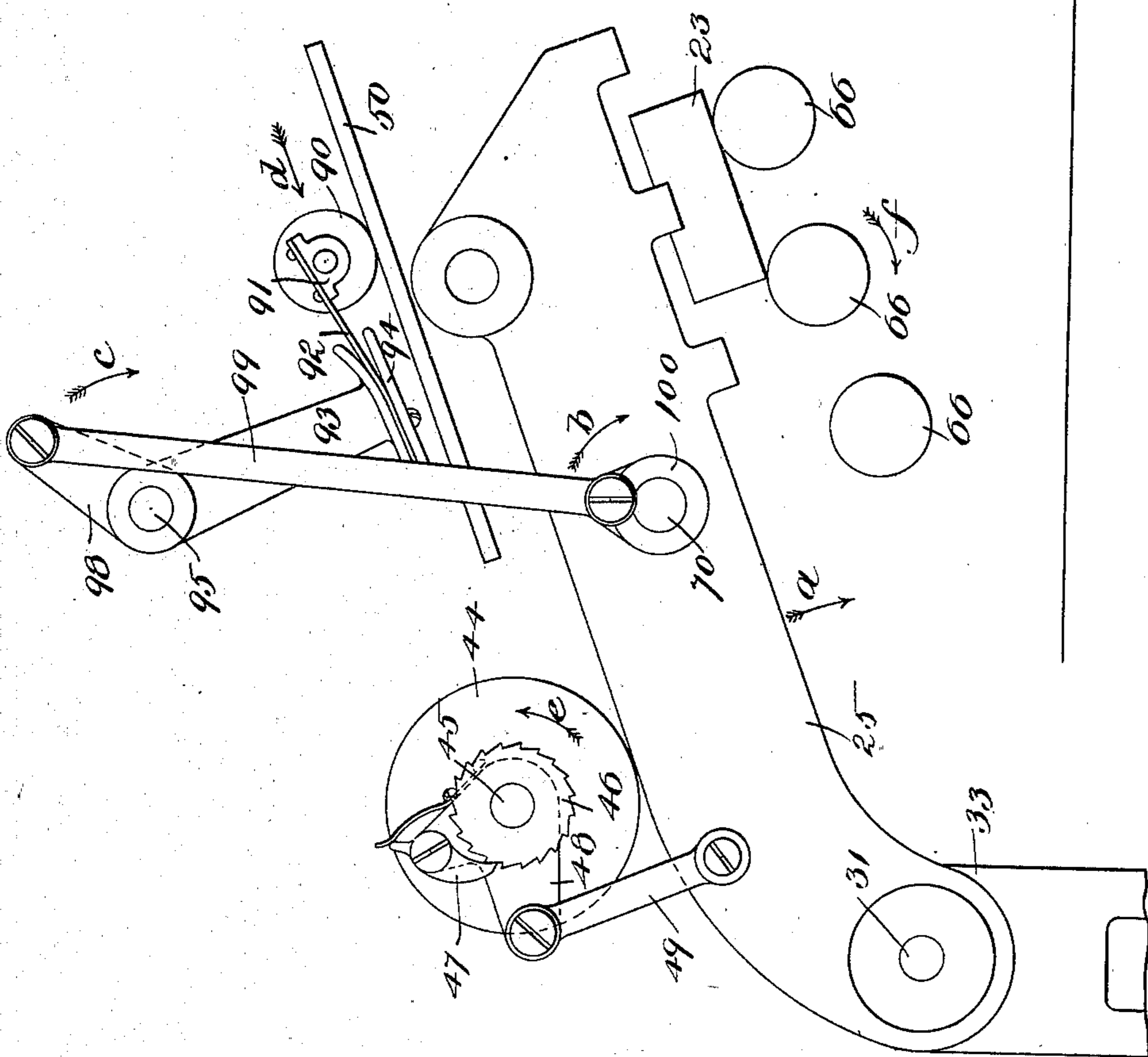
INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 6.

FIG-6-



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PATENTED JULY 7, 1903.

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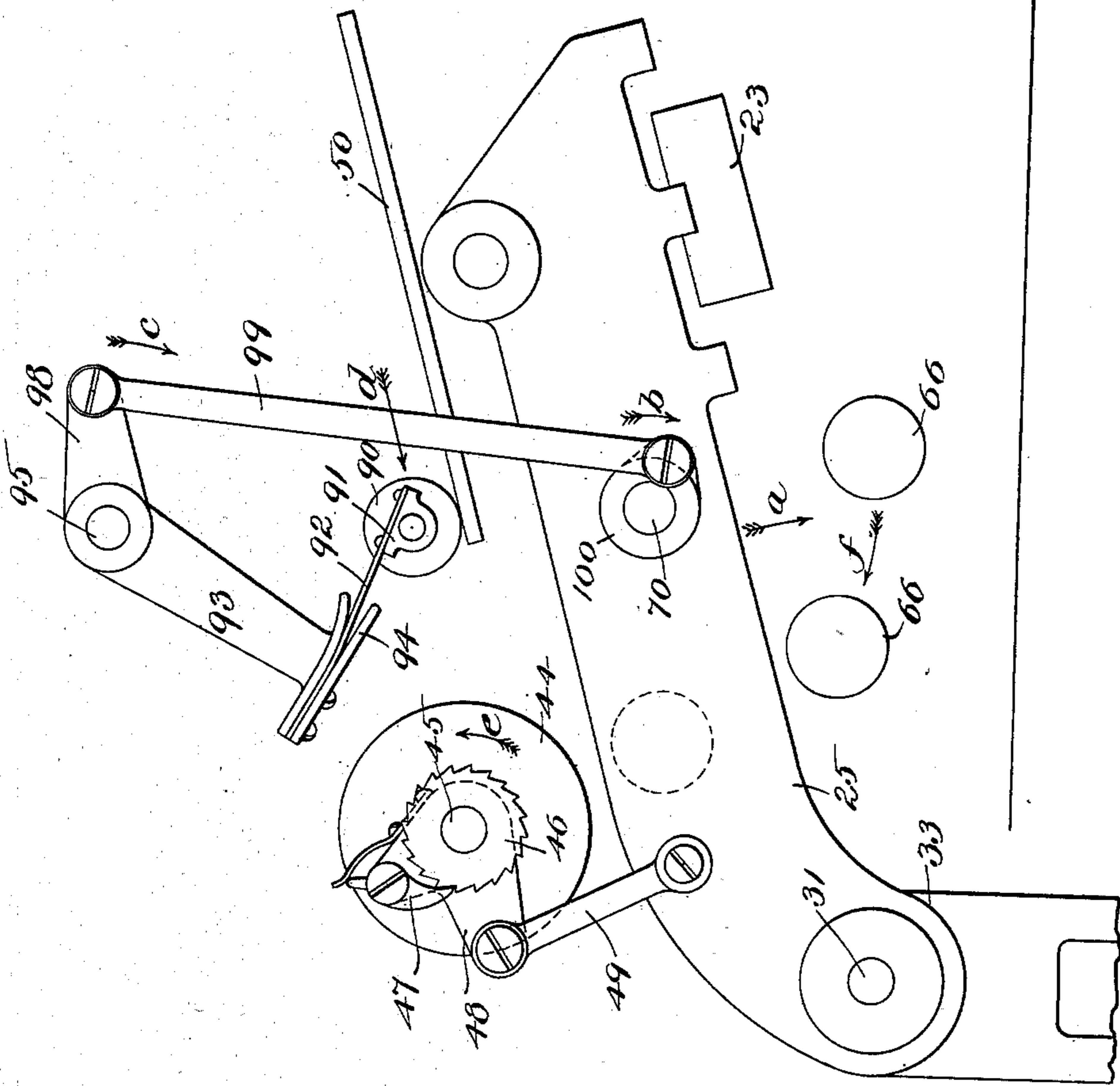
INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 7.

Fig-7-



WITNESSES=

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No. 733,078.

PATENTED JULY 7, 1903.

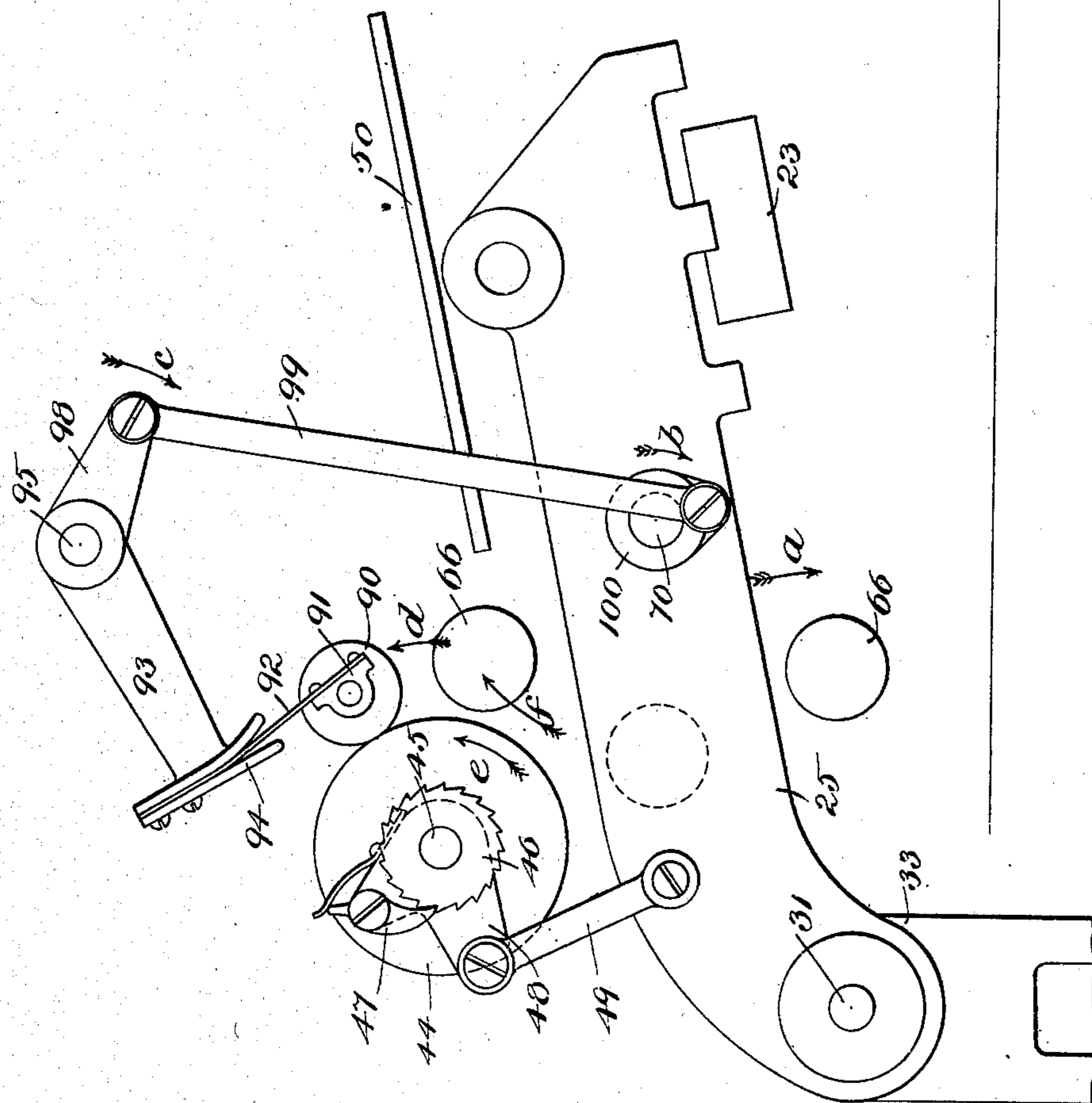
G. H. PIERCE.

# INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 8.



WITNESSES:

Louis A. Jones.

Franklin & Low.

# INVENTOR:

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No. 733.078.

PATENTED JULY 7, 1903.

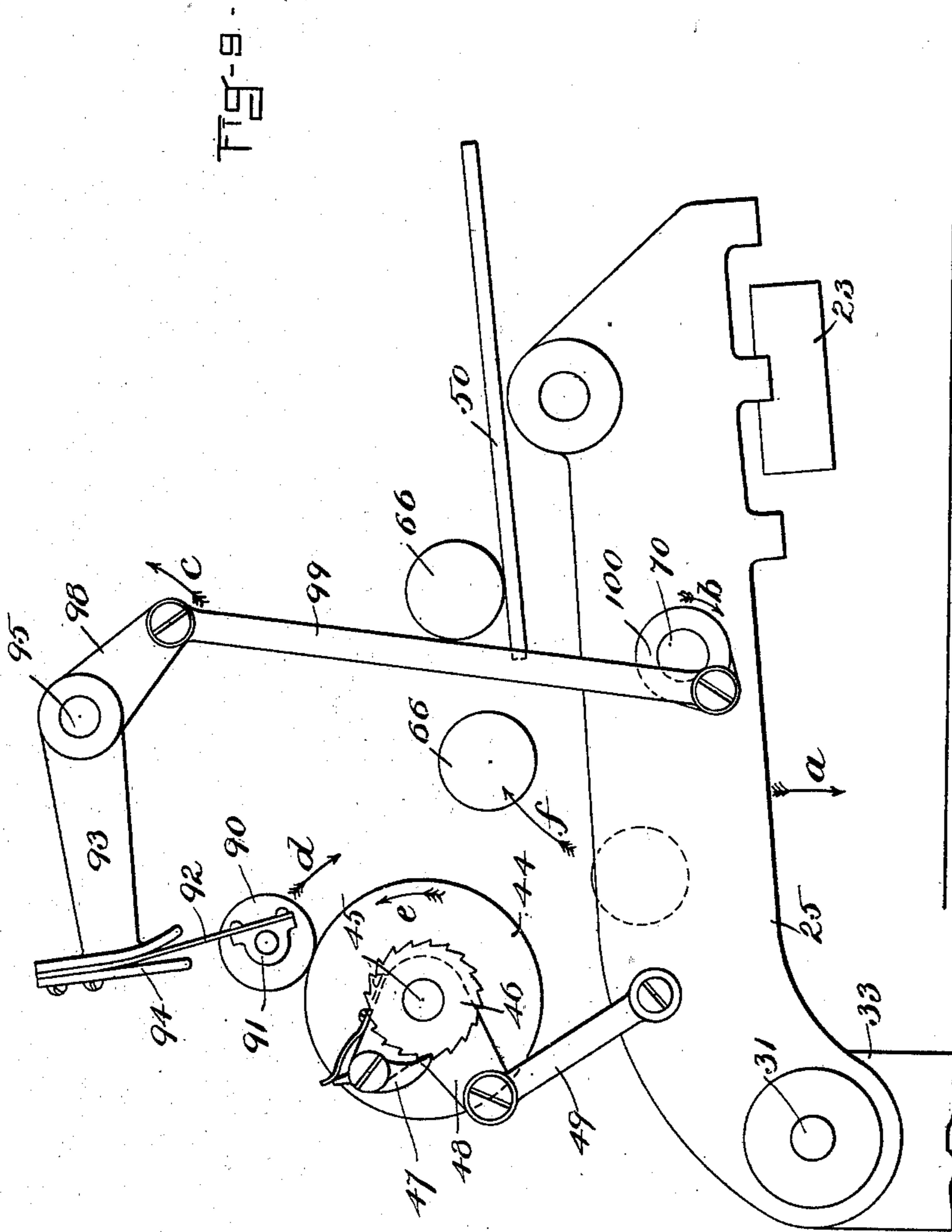
G. H. PIERCE.

# INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 8.



WITNESSES:

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No. 733,078.

PATENTED JULY 7, 1903.

G. H. PIERCE.

INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

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13 SHEETS—SHEET 10.

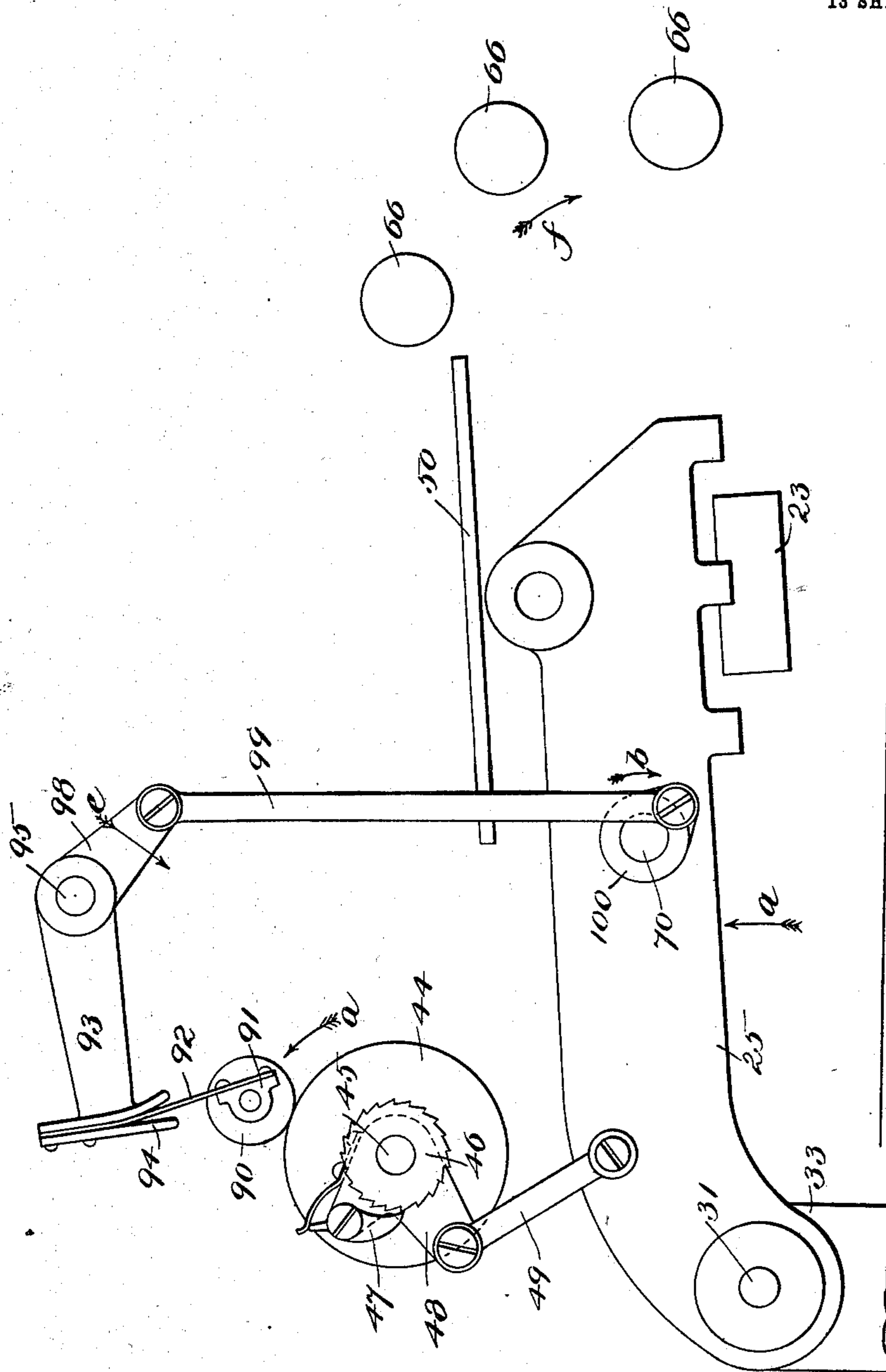


Fig. 10-

WITNESSES:

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No. 733,078.

PATENTED JULY 7, 1903.

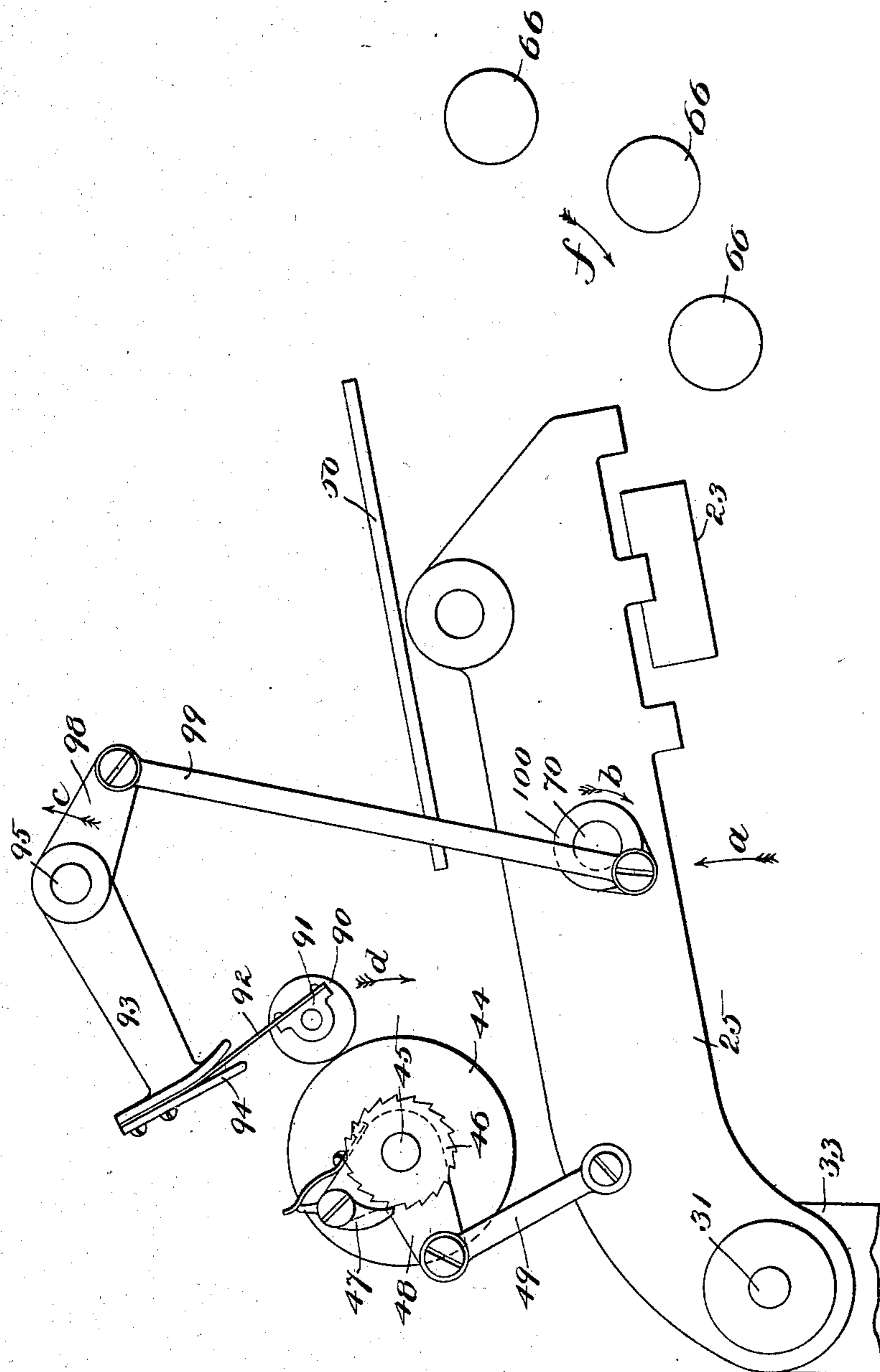
G. H. PIERCE.

INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 11.



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WITNESSES:

Louis A. Jones.  
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No. 733,078.

PATENTED JULY 7, 1903.

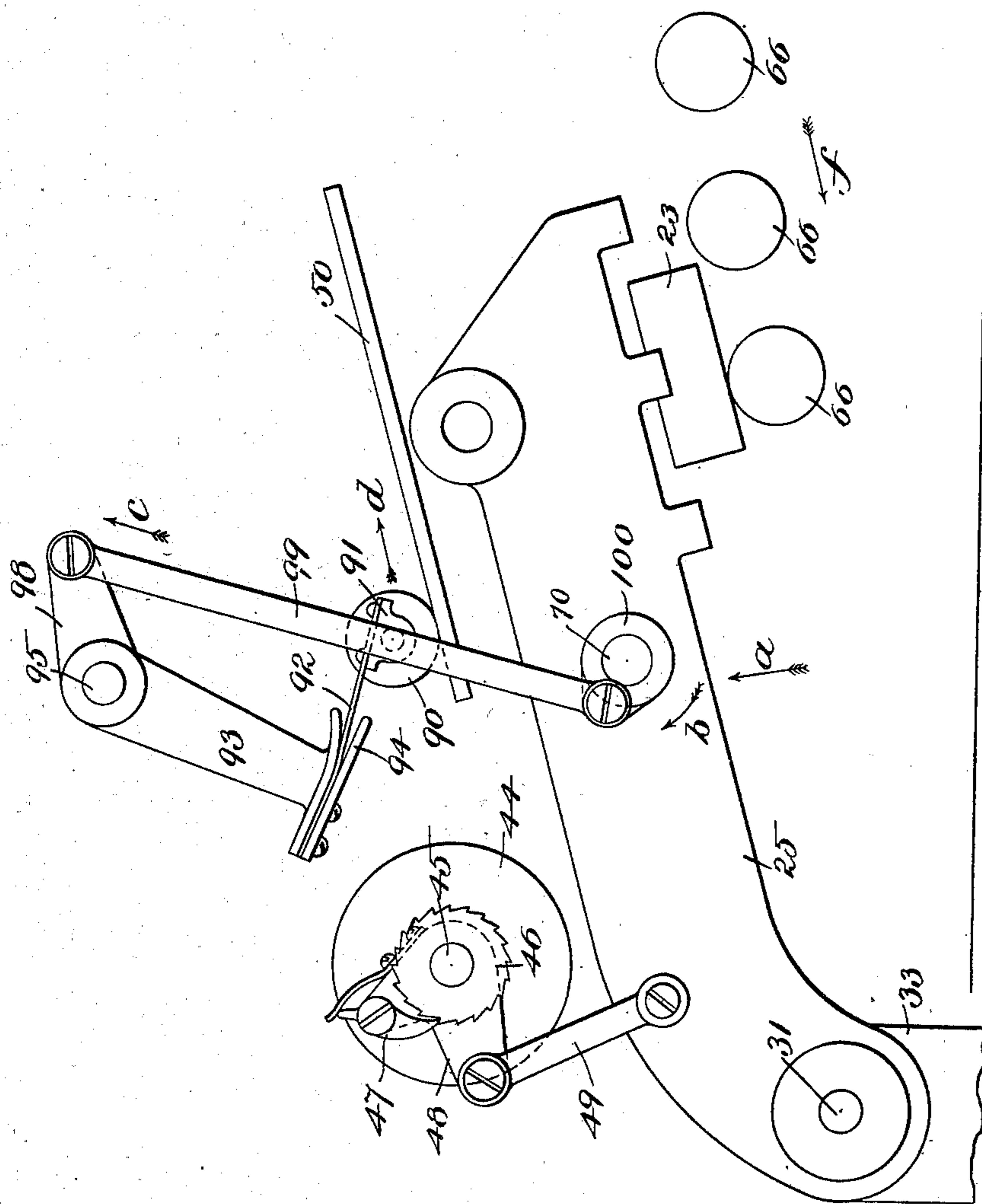
G. H. PIERCE.

# INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 12.



12-17

WITNESSES:

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PATENTED JULY 7, 1903.

G. H. PIERCE.

INK DISTRIBUTING MECHANISM FOR PRINTING PRESSES.

APPLICATION FILED OCT. 15, 1902.

NO MODEL.

13 SHEETS—SHEET 13.

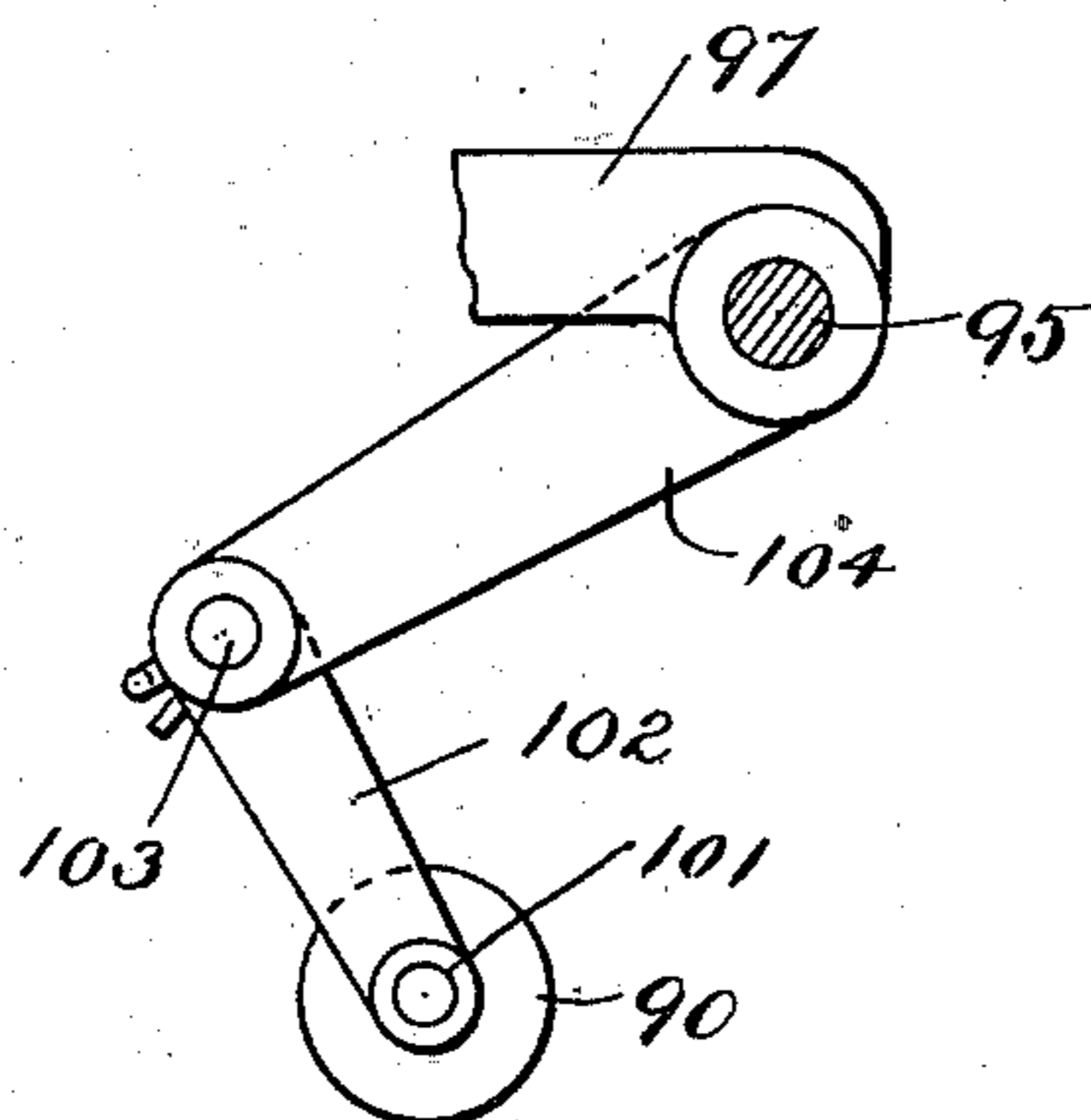


Fig-13-

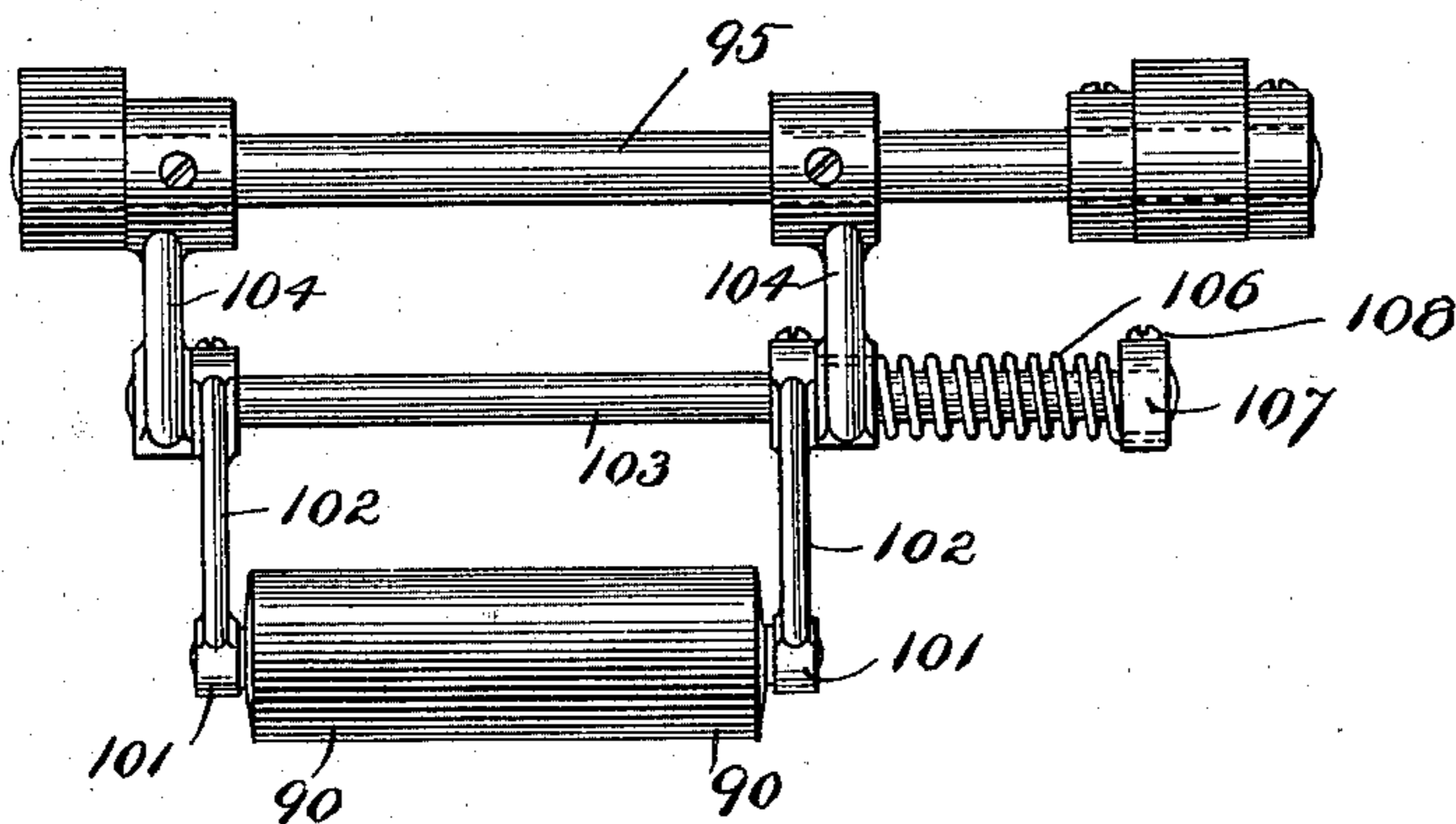


Fig-14-

WITNESSES:

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Franklin E. Low.

INVENTOR:

George H. Pierce.

by this Attorney,

Charles S. Gooding.

# UNITED STATES PATENT OFFICE.

GEORGE H. PIERCE, OF QUINCY, MASSACHUSETTS, ASSIGNOR TO NEW ERA MACHINERY COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF NEW JERSEY.

## INK-DISTRIBUTING MECHANISM FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 733,078, dated July 7, 1903.

Application filed October 15, 1902. Serial No. 127,364. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. PIERCE, a citizen of the United States, residing at Quincy, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Ink-Distributing Mechanism for Printing-Presses, (Case C,) of which the following is a specification.

This invention relates to printing-presses, and particularly to that class of printing-presses in which the printing is done upon a continuous strip or web of paper, the same being afterward cut or punched to form tickets.

The invention is an improvement upon the machine for which I have made applications for Letters Patent of the United States, Serial No. 88,500, filed January 6, 1902, and allowed April 26, 1902, and Serial No. 112,448, filed June 20, 1902, and allowed August 18, 1902.

The improvement in the mechanism hereinafter described as compared with the improvements set forth in the applications hereinbefore referred to consists, mainly, in adding to the mechanisms shown and described in said applications a brayer-roll and mechanism to transfer the ink from an ink-supply roll, preferably journaled in an ink-fountain, to a rotary ink-distribution plate; and, further, the improvement consists in mechanism for moving the brayer-roll into and out of contact with the ink-supply roll and with said ink-distribution plate alternately, and, further, in mechanism for supplying an oscillatory movement to the brayer-roll while said brayer-roll is in contact with said distribution-plate and also while in contact with said ink-supply roll.

Another improvement consists in means for holding the carrier-rolls against the type with a spring-pressure while they are passing across the face of said type.

The object of the invention is to render the distribution of the ink more perfect than in the forms shown and described in the applications hereinbefore referred to.

The invention consists in a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotatory ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a brayer-roll, and

mechanism to move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll.

The invention again consists in the combination and arrangement of parts set forth in the following specification and particularly pointed out in the claims thereof.

Referring to the drawings, Figure 1 is a plan view of my improved ink-distributing mechanism. Fig. 2 is a left-hand side elevation of the same. Fig. 3 is a right-hand side elevation of the same. Fig. 3<sup>a</sup> is a sectional detail taken on line 3<sup>a</sup> 3<sup>a</sup>, Fig. 3. Fig. 4 is a vertical longitudinal section taken on line 4 4 of Fig. 1. Fig. 5 is a vertical transverse section, partly in elevation, taken on line 5 5 of Fig. 2. Figs. 6, 7, 8, 9, 10, 11, and 12 are diagram views illustrating the different positions assumed during one rotation of the main shaft of the machine by the form-carrier, the ink-distribution plate, the ink-carrier rolls, the brayer-roll, the rocker-arm upon which said brayer-roll is spring-supported, the rotary crank and the link connecting said crank and rocker-arm, and the pawl-and-ratchet mechanism by which the ink-supply or fountain roll is rotated. Fig. 13 is a side elevation, and Fig. 14 a front elevation, of a modified means of spring-supporting the brayer-roll upon the rocker-arm.

Like numerals refer to like parts throughout the several views of the drawings.

In the drawings, 20 is the bed-frame of a printing-press of any desirable construction. 21 is a raised portion thereon covered by a pad 22, Fig. 4.

The type 23 are secured to a chase 24, said chase being held against the under side of the form-carrier 25 by flat springs 26 at the left-hand side thereof, Fig. 4, and by a clamp 27 at the right-hand side thereof in said figure. Said clamp is removed when it is desired to insert or remove the chase from the form-carrier in order to change the type.

The form-carrier 25 consists of two side arms 28 29, joined together by a base-plate 30. Said side arms 28 and 29 are pivoted upon a rotary shaft 31, journaled in bearings 32 and 33 upon the bed-frame 20. Said shaft 31 is

guarded against longitudinal movement in its bearings by a collar 34, fast to one end thereof, and at the other end by the sprocket-gear 35 and spur-gear 36, keyed thereto. The sprocket-gear 35 is rotated together with the spur-gear 36 by a sprocket-chain 37, driven by another sprocket-gear fast to the main driving-shaft of the machine. (Not shown in the drawings.) At each side of the form-carrier 25 is a connecting-rod 38, pivotally connected to the arms 28 and 29 by a stud 39. The lower end of said connecting-rod may be raised and lowered by a crank-pin or any other appropriate mechanism, thus raising and lowering the form-carrier 25 and rocking the same upon its pivotal shaft 31.

The paper 40 is fed intermittently by any suitable mechanism across the face of the pad 22 and below the base-plate 30 of the form-carrier 25 and the type 23, secured to said form-carrier, as hereinbefore set forth.

The ink is contained in a fountain 41, supported upon brackets 42 43, fast to the frame of the machine. An ink-fountain supply-roll 44 is fast to a shaft 45, journaled in said brackets 42 and 43. Rotary motion is imparted to the ink-supply roll 44 by a ratchet 46, fast to the shaft 45, a pawl 47 engaging said ratchet and pivotally supported upon a pawl-lever 48, to which pawl-lever a rocking motion is imparted by a link 49, pivotally connected at one end to said pawl-lever and at the other end thereof to the side arm 29 of the form-carrier 25.

A horizontal ink-distribution plate 50 is fast to a vertical shaft 51, arranged to rotate in a bearing 52 upon the base-plate 30 of the form-carrier. Upon the under face of the ink-distribution plate 50 is provided a ratchet 53, which is rotated by a pawl 54, pivotally supported at 55 upon an arm 56, which in its turn is fastened to a rocker-shaft 57, journaled in a vertical flange 58, Figs. 1 and 4, integral with the base-plate 30. A rocking motion is imparted to the arm 56 by another arm 59, fast to the opposite end of the shaft 57 to that at which the arm 56 is fastened and operated by a pin 60, fast to the sprocket-gear 61. The arm 56 is held in the position shown in Fig. 4 against a pin 62 by a tension spiral spring 63, one end of which is fast to the pawl 54, the other end to a bracket 64, fast to the base-plate 30. Said spiral spring holds the pawl 54 in contact with the teeth of the ratchet 53 and also holds the arm 56 normally against the pin 62. As the sprocket-gear 61 is rotated in the direction indicated by the arrow thereon, Fig. 4, the pin 60 engages the under side of the offset 65 upon the arm 59, lifting said arm and rocking the arm 56 toward the right, Fig. 4, moving the pawl 54 toward the right in said figure and rotating the ratchet 53 and the distribution-plate 50 through a space of one tooth in the direction of the arrow upon said distribution-plate in Fig. 1. When the pin 60 has passed by the projection 65 upon the arm 59, the spring 63

will draw the pawl 54 and arm 56 toward the left, Fig. 4, bringing the arm 56 against the stop-pin 62 and the pawl 54 into engagement with a new tooth in readiness to be actuated by the pin 62 upon its next rotation.

The ink-carrier rolls 66 66 are each fast to a shaft 79, which rotates in bearings 67, formed in the links 68 68 of the sprocket-chains 69 69. Each of the sprocket-chains 69 is driven by a sprocket-gear 61, fast to a shaft 70, which rotates in bearings 71 in the form-carrier arms 28 29. Each of the sprocket-chains 69 passes from one of the sprocket-gears 61 around a sprocket-gear 72, said gears 72 being idlers and journaled to rotate upon an adjustable stationary shaft 73. Said shaft is preferably rectangular throughout its length except at the two ends thereof, where it is made cylindrical to receive the sprocket-gears 72 72. The shaft 73 passes through slots 74 74 in the right-hand end, Fig. 4, of the vertical flanges 58 58 upon the form-carrier 25 and is adjusted to take up any slack in the chains 69 by means of adjusting-screws 75, having screw-threaded engagement with said shaft and bearing at the left-hand end thereof against a transverse rib 76, integral with the base-plate 30, the object of this adjustment being to keep the sprocket-chains 69 69 tight, so that the rolls will not sag as they are being carried across the upper face of the ink-distribution plate 50, around the type, across the face thereof, and back to said ink-distribution plate.

The shaft 70 to which the sprocket-gears 61 are fastened is rotated by a spur-gear 77, keyed thereto and meshing into an intermediate gear 78, which rotates upon a stud 79, fast to the arm 28. The intermediate gear 78 is driven by the gear 36.

In order to guide the ink-carrier rolls 66 66 with precision across the face of the type and to prevent the sprocket-chain 69 from sagging and also in order to hold said ink-carrier rolls against the surface of the type with a yielding pressure as it passes thereacross, I provide upon each side of the form-carrier a plate 80. Said plates are provided with cylindrical bosses 81 81, each of said bosses being provided with a vertical cylindrical recess 82, in which is located a spiral spring 83, the upper end thereof bearing against the upper end of the recess 82, the lower end thereof bearing against a head 84 upon a bolt 85, said bolt being screw-threaded at its upper end to engage a boss 86, formed upon the under side of the form-carrier arms. Each of the plates 80 is provided with a groove 87 upon its inner face, which receives the friction-rolls 88 88, fast to each end of the shaft 79, and guides the ink-carrier rolls 66 as they pass across the face of the type, holding said ink-carrier rolls against the face of said type with a yielding spring-pressure, due to the fact that the plates 80 are held upwardly with a spring-pressure by the spiral springs 83, hereinbefore described. It will be noted that the grooves 87 are beveled downwardly at each end 89 89 in

order that as the rolls 66 enter said grooves the plates 80 will be pushed downwardly, thus bringing into action the spring-pressure heretofore referred to, and as the rolls leave the groove this downward inclination releases the plate 80 without jar.

Ink is transferred from the ink-supply roll 44 to the ink-distribution plate 50 by a brayer-roll 90, journaled to rotate in bearings 91, fast to flat springs 92, said flat springs being in turn fastened to rocker-arms 93 by means of a clamp-plate 94. The rocker-arms 93 are fastened to a rocker-shaft 95, journaled in bearings 96 96, formed in brackets 97, fast to the brackets 42 43. A rocking motion is given to the rocker-shaft 95 by an arm 98, connected by a link 99 to a crank-arm 100, fast to the rotary sprocket-shaft 70.

The operation of the mechanism hereinbefore described is as follows, it being understood that the form-carrier 25 is raised and lowered by the connecting-rods 38 and that the crank-arm 100 is given a constant rotary motion by the shaft 70 through the gears 77, 78, and 36, the gear 36 being rotated by the shaft 31, to which it is keyed, said shaft 31 being rotated by the sprocket-gear 35 and chain 37: The different consecutive relative positions of the form-carrier 25, ink-supply roll 44, crank-arm 100, link 99, brayer-roll 90, rocker-arms 93 and 98, ink-distribution plate 50, and ink-carrier rolls 66 are illustrated in Figs. 6, 7, 8, 9, 2, 10, 11, and 12 in the order named. In each of said figures the arrows *a*, *b*, *c*, *d*, *e*, and *f* indicate, respectively, the directions in which the form-carrier 25, the crank-arm 100, the rocker-arm 98, the brayer-roll 90, the ink-supply roll 44, and the ink-carrier rolls 66 are moving or rotating, as the case may be. By reference to said figures it will be seen that in Fig. 6 the form-carrier is in its uppermost position and just starting to descend. The ink-carrier rolls are passing across the face of the type, and the brayer-roll is at the right-hand end of its reciprocatory motion upon the ink-distribution plate 50. In Fig. 7 the form-carrier is descending, the ink-carrier rolls have passed to the left of the type, and the brayer-roll has passed to the extreme left of the ink-distribution plate. In Fig. 8 the form-carrier is still descending, the ink-carrier rolls are passing upwardly, and the brayer-roll has been brought into contact with the ink-supply roll. In Fig. 9 the form-carrier is still descending, the ink-carrier rolls are coming into contact with the ink-distribution plate, and the brayer-roll has been brought to its uppermost position in contact with the periphery of the ink-supply roll. In Fig. 2 the form-carrier has descended until the type is in contact with and printing upon the paper, the ink-carrier rolls are in contact with and just passing across the upper face of the ink-distribution plate, and the brayer-roll is still in contact with the periphery of the ink-supply roll at its lowermost point thereon and about to move upwardly in

contact therewith. In Fig. 10 the form-carrier is moving upwardly, the ink-carrier rolls have passed to the right beyond the ink-distribution plate, and the brayer-roll has been moved upwardly toward its uppermost position in contact with the periphery of the ink-supply roll. In Fig. 11 the form-carrier is moving upwardly, the ink-supply rolls are approaching the type from the right-hand side thereof, and the brayer-roll, still in contact with the ink-supply roll, is moving upwardly thereon. In Fig. 12 the form-carrier is moving upwardly, the brayer-roll has been moved back into contact with the ink-distribution plate at the left-hand side thereof, and the ink-carrier rolls are in contact with the type. It will thus be seen that the gearing which rotates the sprocket-shaft 70 is so proportioned to the gearing which raises and lowers the form-carrier head that the brayer-roll will pass from the right-hand side of the distribution-plate, Fig. 6, to the left of said plate, Fig. 7, thence to the ink-supply roll, Fig. 8, upwardly in contact with the periphery of said roll, Fig. 9, downwardly upon said periphery, Fig. 2, upwardly, Fig. 10, downwardly, Fig. 11, back to the ink-distribution plate, Fig. 12, and next to the position shown in Fig. 6 at the left of said plate, so that in one cycle of operation or in one rotation of the main driving-shaft of the machine and during one upward and downward motion of the form-carrier the brayer-roll is given one oscillatory motion forward and back upon the ink-distribution roll and two oscillatory motions up and down in contact with the periphery of the ink-supply roll.

It is evident that an endless band with bearings attached thereto for the ink-carrier rolls might be substituted in place of the sprocket-chains 69 without departing from the spirit of my invention and also that the brayer-roll instead of being supported upon a flat spring upon the rocker-arm 93 may be journaled in bearings 101, formed in rocker-arms 102, said rocker-arms 102 being fast to a rock-shaft 103, journaled in the rocker-arms 104, said rocker-arms 104 being fast to the shaft 95. A torsional spiral spring 106 is fast at one end to one of the arms 104 and at the opposite end to a collar 107, which is fastened by a set-screw 108 to the rocker-shaft 103, so that the tension upon the spring 106 may be adjusted by turning the collar 107 in the proper direction, fastening it to the rocker-shaft 103 by means of said set-screw 108.

Having thus described my invention, what I claim, and desire by Letters Patent to secure, is—

1. In a printing-press, a form-carrier, type carried by said form-carrier, an endless chain and gearing operatively connected thereto, an ink-carrier roll journaled upon said endless chain, a rotatory ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a brayer-roll, mechanism to move said brayer-roll alternately into and out of

and with said ink-supply roll, and mechanism to impart an oscillatory motion to said brayer-roll while said brayer-roll is in contact with said ink-supply roll. 70

6. In a printing-press, a bed, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, type carried by said form-carrier, an endless chain and gearing operatively connected thereto supported upon said form-carrier, an ink-carrier roll journaled upon said endless chain, a rotatory ink-distributing plate journaled upon said form-carrier, mechanism to impart an intermittent rotary motion to said plate, mechanism to rotate said gearing and carry said ink-carrier roll across the face of said plate and across the face of said type, an ink-supply roll, a brayer-roll, and mechanism to move said brayer-roll alternately into and out of contact with said ink-distribution plate and said ink-supply roll.

7. In a printing-press, a form-carrier, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a brayer-roll, mechanism to move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll, and mechanism to impart an oscillatory motion to said brayer-roll while said brayer-roll is in contact with said ink-supply roll.

8. In a printing-press, a form-carrier, a rotatory ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a brayer-roll, mechanism to move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll, and mechanism to impart an oscillatory motion to said brayer-roll while said brayer-roll is in contact with said ink-distribution plate.

9. In a printing-press, a form-carrier, type  
carried by said form-carrier, a rotatory ink-  
distribution plate journaled upon said form-  
carrier, an ink-carrier roll, mechanism to carry  
said ink-carrier roll across the face of said  
ink-distribution plate and across the face of  
said type, an ink-supply roll, a brayer-roll,  
and mechanism to move said brayer-roll al-  
ternately into and out of contact with said  
ink-distribution plate and with said ink-sup-  
ply roll.

10. In a printing - press, a form - carrier, a 12c  
pivot therefor, mechanism to rock said form-  
carrier upon its pivot, type carried by said  
form-carrier, a rotatory ink-distribution plate  
journaled upon said form-carrier, an ink-sup-  
ply roll, a brayer-roll, and mechanism to move 125  
said brayer - roll alternately into and out of  
contact with said ink - distribution plate and  
with said ink-supply roll.

11. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a brayer-roll, and mechanism to move said brayer-roll alternately into

and out of contact with said ink-distribution plate and with said ink-supply roll.

12. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a brayer-roll, mechanism to move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll, and mechanism to impart an oscillatory motion to said brayer-roll while said brayer-roll is in contact with said ink-supply roll.

13. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a brayer-roll, mechanism to move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll, and mechanism to impart an oscillatory motion to said brayer-roll while said brayer-roll is in contact with said ink-distribution plate.

14. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a rocker-arm, a brayer-roll supported upon said rocker-arm, and mechanism to impart a rocking movement to said rocker-arm and move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll.

15. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a rocker-arm, a brayer-roll spring supported upon said rocker-arm, and mechanism to impart a rocking movement to said rocker-arm and move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll.

16. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a rocker-arm, a brayer-roll supported upon said rocker-arm, mechanism to impart a rocking movement to said rocker-arm and move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll, and mechanism to impart an oscillatory motion to said brayer-roll while said brayer-roll is in contact with said ink-supply roll.

17. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a rocker-arm, a brayer-roll supported upon said rocker-arm, mechanism to impart a rocking movement to said rocker-arm and move said brayer-roll alter-

nately into and out of contact with said ink-distribution plate and with said ink-supply roll, and mechanism to impart an oscillatory motion to said brayer-roll while said brayer-roll is in contact with said ink-distribution plate.

18. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a rocker-arm, a brayer-roll supported upon said rocker-arm, and a link one end pivotally connected to said rocker-arm the other end to said form-carrier to impart a rocking movement to said rocker-arm and move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll.

19. In a printing-press, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a rocker-arm, a brayer-roll supported upon said rocker-arm, a rotary shaft journaled upon said form-carrier, a crank-arm fast to said shaft, and a link one end pivotally connected to said crank-arm the other to said rocker-arm.

20. In a printing-press, a form-carrier, type carried by said form-carrier, a pivot for said form-carrier, mechanism to rock said form-carrier upon its pivot, an endless chain and gearing operatively connected thereto, an ink-carrier roll journaled upon said endless chain, a rotary ink-distribution plate journaled upon said form-carrier, an ink-supply roll, a brayer-roll, mechanism to move said brayer-roll alternately into and out of contact with said ink-distribution plate and with said ink-supply roll, and mechanism to rotate said gearing and carry said ink-carrier roll across the face of said ink-distribution plate and across the face of said type.

21. In a printing-press, a form-carrier, type carried by said form-carrier, an endless chain and gearing operatively connected thereto, an ink-carrier roll journaled upon said endless chain, mechanism to rotate said gearing and carry said ink-carrier roll across the face of said type, and means for holding said ink-carrier roll in contact with the face of said type with a spring-pressure as it travels thereacross.

22. In a printing-press, a form-carrier, type carried by said form-carrier, an endless chain and gearing operatively connected thereto, an ink-carrier roll, a shaft fast thereto journaled upon said endless chain, mechanism to rotate said gearing and carry said ink-carrier roll across the face of said type, and a plate, spring-supported upon said form-carrier and provided with a groove engaging said ink-carrier-roll shaft and holding said ink-carrier roll in contact with the face of said type with a yielding pressure as it travels thereacross.

23. In a printing-press, a form-carrier, type carried by said form-carrier, an endless chain

and gearing operatively connected thereto, an ink-carrying roll, a shaft fast thereto journaled upon said endless chain, a rotary ink-distribution plate journaled upon said form-carrier, mechanism to rotate said gearing and carry said ink-carrier roll across the face of said type and across the face of ink-distribution plate, and a plate, spring-supported upon said form-carrier and provided with a groove engaging said ink-carrier-roll shaft and holding said ink-carrier roll in contact with the face of said type with a yielding pressure as it travels thereacross.

24. In a printing-press, a bed, a form-carrier, a pivot therefor, mechanism to rock said form-carrier upon its pivot, type carried by said form-carrier, an endless chain and gearing operatively connected thereto supported upon said form-carrier, an ink-carrier roll journaled upon said endless chain, a rotatory

ink-distributing plate journaled upon said form-carrier, mechanism to impart an intermittent rotary motion to said plate, mechanism to rotate said gearing and carry said ink-carrier roll across the face of said distribution-plate and across the face of said type, and a plate, spring-supported upon said form-carrier, provided with a groove engaging said ink-carrier-roll shaft and holding said ink-carrier roll in contact with the face of the type with a yielding pressure as it travels thereacross.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE H. PIERCE.

Witnesses:

CHARLES S. GOODING,  
ANNIE J. DAILEY.