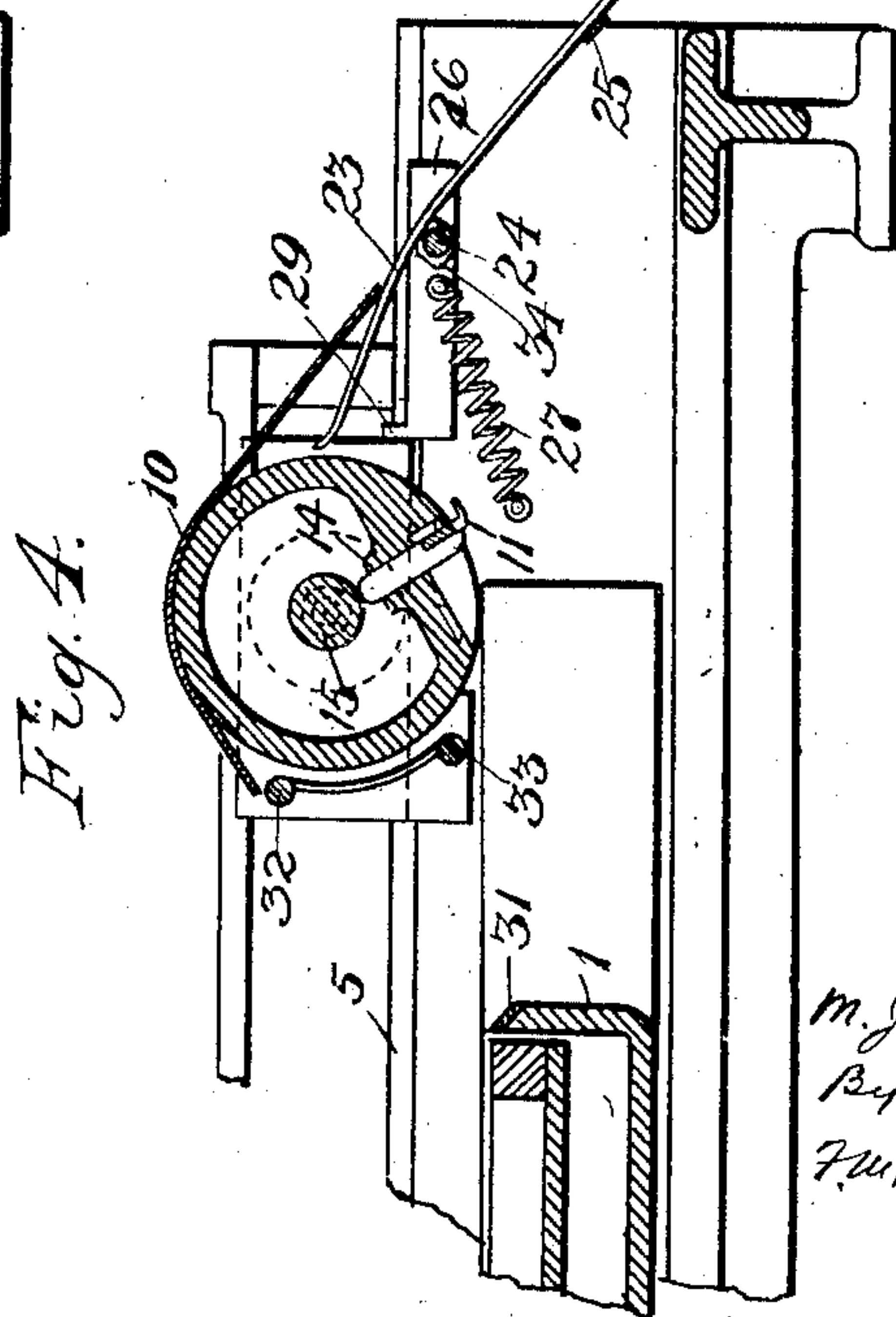
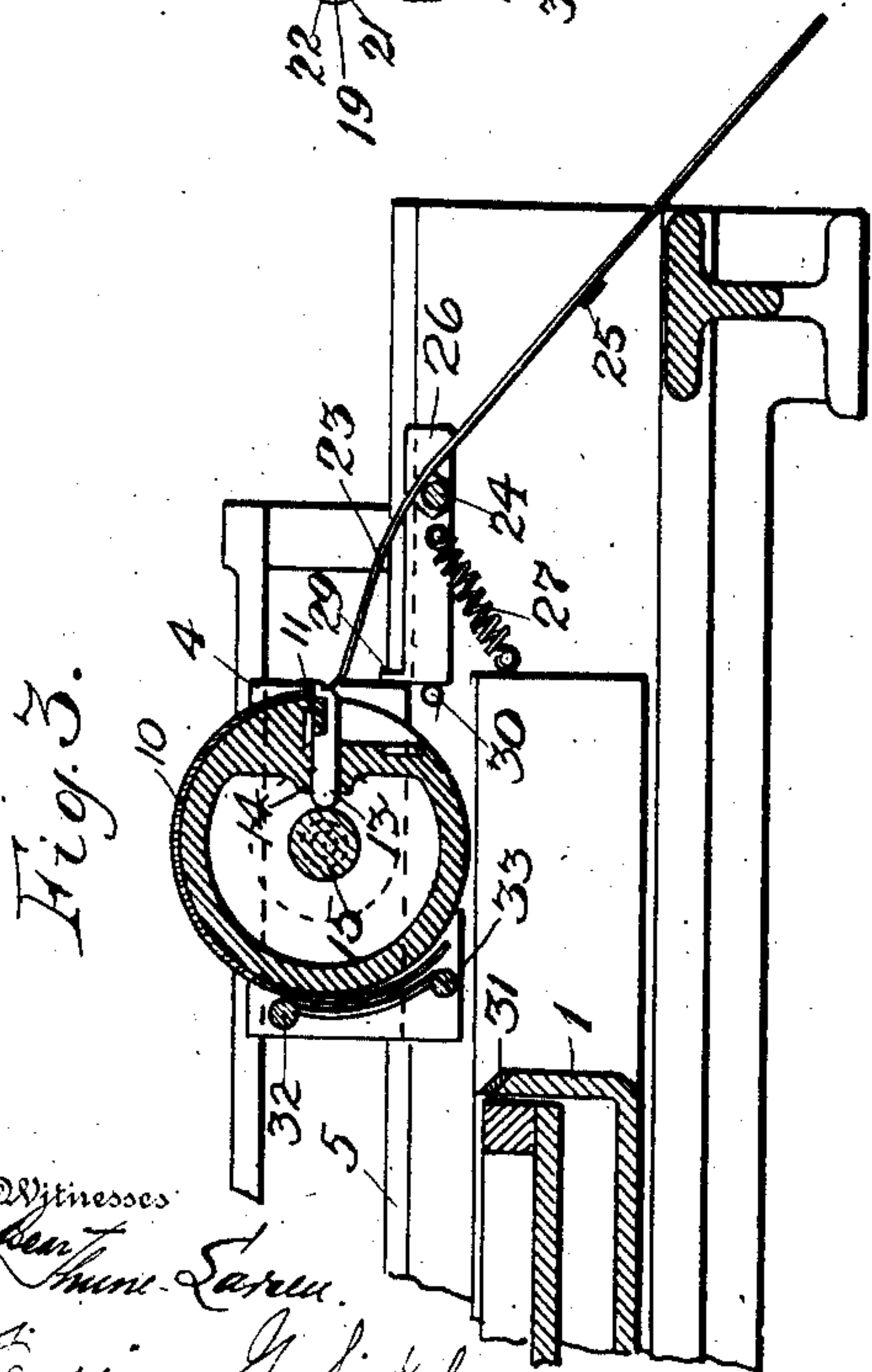
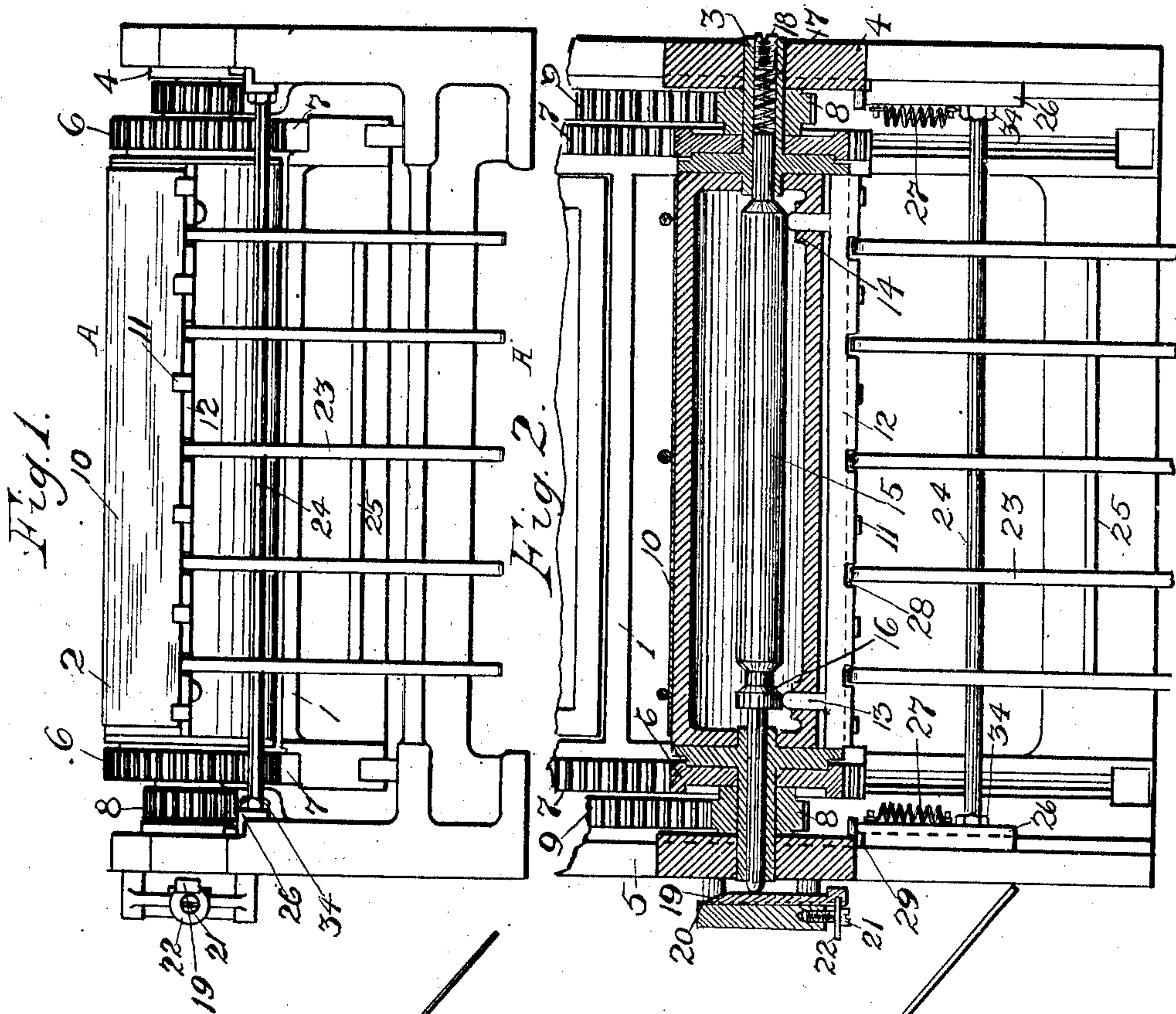


No. 826,825.

PATENTED JULY 24, 1906.

M. J. BARNETT.
DELIVERY MECHANISM FOR PRINTING PRESSES.
APPLICATION FILED JUNE 27, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

MORRISSON J. BARNETT, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR,
BY MESNE ASSIGNMENTS, TO WHITSON AUTOPRESS COMPANY, A
CORPORATION OF NEW YORK.

DELIVERY MECHANISM FOR PRINTING-PRESSES.

No. 826,825.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed June 27, 1904. Serial No. 214,310.

To all whom it may concern:

Be it known that I, MORRISSON J. BARNETT, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Delivery Mechanism for Printing - Presses, of which the following is a specification.

My invention relates to an improved delivery mechanism for printing-presses, the object of my invention being to provide mechanism of this character which shall be simple and cheap in construction and certain and effective in operation.

My invention, therefore, resides in the novel construction, combination, and arrangement of parts for the above ends, hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of the rear portion of a printing-press containing the delivery mechanism. Fig. 2 is a horizontal section of the same. Fig. 3 is a longitudinal vertical section on the line A A of Fig. 1. Fig. 4 is a view similar to Fig. 3, showing the parts in a different position.

Referring to the drawings, 1 represents the bed of a printing-press, and 2 the impression-cylinder. Said cylinder has secured thereon hollow trunnions 3, revolving in boxes 4, sliding on the frame 5 of the press, and is revolved by means of gear-wheels 6, engaging with racks 7 on the bed 1 of the printing-press. In addition, a longitudinal movement is imparted to the cylinder by means of small gear-wheels 8, secured upon the trunnions, which mesh with racks 9, secured upon the frame of the printing-press. This part of the apparatus, however, forms no part of my present invention.

The paper to be printed (shown at 10) is held to the cylinder by gripper-fingers 11, engaging one edge of the paper, said fingers being formed integral with a gripper-plate 12, having pins 13, which slide in holes in the thickened portion 14 of the wall of the cylinder, the inner ends of said pins being rounded to be engaged by the cam-carrying shaft 15, having cam-shaped portions 16 thereon. One end of said shaft is supported in one of the hollow trunnions of the cylinder and is pressed in a longitudinal direction therein by

means of a spring 17 in said trunnion adjusted by a screw 18 screwed therein. The other end of the shaft is supported in the other hollow trunnion, and its end projects outwardly from said trunnion and is adapted in the longitudinal movement of the cylinder to engage a cam 19, adjustable in a beveled groove 20 by means of a screw 21, the flanged head 22 of which engages a groove in said cam 19. When the projecting end of the cam-shaft 15 reaches said cam 19, said cam-shaft is pushed inward, thereby causing the cam-shaped portions 16 thereof to engage the rounded ends of the pins 13 and move the gripper-fingers outwardly, thereby releasing the edge of the paper which has been printed on. This takes place just at the time when said edge comes over the upwardly-projecting ends of separator-strips 23. These strips are secured to cross-bars 24 25, of which the bar 24 has its ends secured to sliding carriers 26, said carriers being normally retracted by means of springs 27. These springs pull downward as well as forward, and thus hold the carriers 26 to their seats. The gripper-plate is cut out at its edge, as shown at 28, to receive the ends of the lifter-strips. At the same time that the edge of the paper is released from the gripper-fingers and is also brought over the ends of the separator-strips the boxes 4 engage upward projections or lugs 29 on the carriers 26, so that thenceforth said carriers move with the boxes, the ends of the separator-strips being in close proximity to the circumference of the cylinder. In the meantime the revolution of the cylinder causes the paper to travel down on the top of the separator-strips, and when the cylinder is arrested the paper, being quite free at its rear edge, continues onward by its acquired momentum and passes over said strips into any suitable receptacle. Upon the return movement of the cylinder the carriers 26 are arrested by stop-pins 30 on the frame.

The rear upper corner of the bed has attached thereto vulcanized fiber 31, and when the bed arrives at the rearward limit of its reciprocation this vulcanized fiber impinges upon the under sides of the separator-strips 23 and agitates them to shake down any sheets of paper resting thereon.

The rear edge of the paper is held to the cylinder by means of vertical wires which ex-

tend close to the cylinder between horizontal upper and lower bars 32 33, secured to and traveling with the slide-boxes 4.

In order to adjust the separator-strips, so as to engage the paper at different elevations, the nuts 34 are provided.

I claim—

1. In printing-press delivery mechanism, the combination of a traveling rotary cylinder, gripping mechanism holding the edge of the sheet to the cylinder, means for withdrawing said mechanism from said sheet and separating mechanism comprising a part into close proximity with which the part of the circumference of the cylinder carrying the edge of the sheet is brought simultaneously with the withdrawal of the gripping mechanism, said separating mechanism then moving bodily in front of the cylinder with the same direction and velocity, substantially as described.

2. In printing-press delivery mechanism, the combination of a traveling rotary cylinder, gripping mechanism holding the edge of the sheet to the cylinder, means for withdrawing said mechanism from said sheet and separating mechanism comprising a part into close proximity with which the part of the circumference of the cylinder carrying the edge of the sheet is brought simultaneously with the withdrawal of the gripping mechanism, said separating mechanism then moving bodily in front of the cylinder in the same direction therewith, substantially as described.

3. In printing-press delivery mechanism, the combination of the cylinder, means for holding an edge of the sheet to the cylinder, separator - strips, a movable cross - bar to which said separator-strips are secured, carriers for said bar, springs for said carriers, and means moving longitudinally with the

impression - cylinder for engaging said carriers to move said bar against the action of said springs, substantially as described.

4. In printing-press delivery mechanism, the combination of a frame, boxes sliding thereon, an impression-cylinder having trunnions revolving in said boxes, a gripper holding the edge of the sheet to the cylinder, separator-strips, a movable cross-bar to which said strips are secured, carriers for said movable bar, springs retracting said carriers, and projections on the boxes engaging said carriers to move them against said springs, substantially as described.

5. In printing-press delivery mechanism, the combination of a cylinder, gripping mechanism for holding the edge of the sheet to the cylinder, separating mechanism adapted to engage the edge of the sheet at a predetermined point in the path of the cylinder means for withdrawing said gripping mechanism to release the edge of the sheet and means acting simultaneously with said latter means for imparting longitudinal motion with the cylinder to the separating mechanism, substantially as described.

6. In printing-press delivery mechanism, the combination of a cylinder, means for delivering the sheets from the cylinder comprising means for engaging the edge of the sheet and a chute for directing the movement of the sheet, and a bed arranged to impinge upon said chute to agitate the same to shake the sheets down, substantially as described.

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

MORRISSON J. BARNETT.

Witnesses:

FRANCIS M. WRIGHT,
BESSIE GORFINKEL.