

(No Model.)

2 Sheets—Sheet 1.

F. A. BURNHAM.

MEANS FOR ACTUATING INK DISKS IN PLATEN PRINTING PRESSES.

No. 603,496.

Patented May 3, 1898.

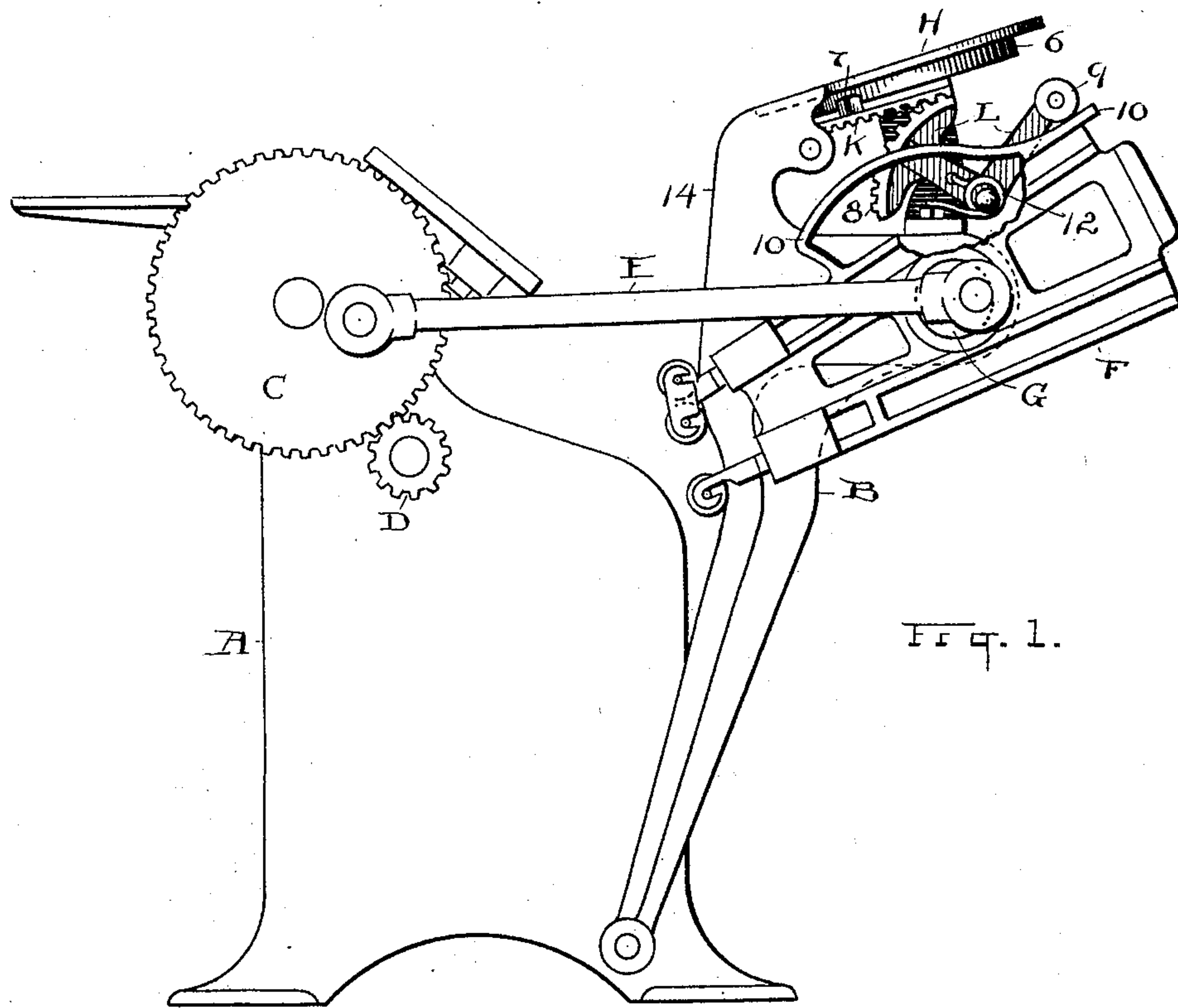


Fig. 1.

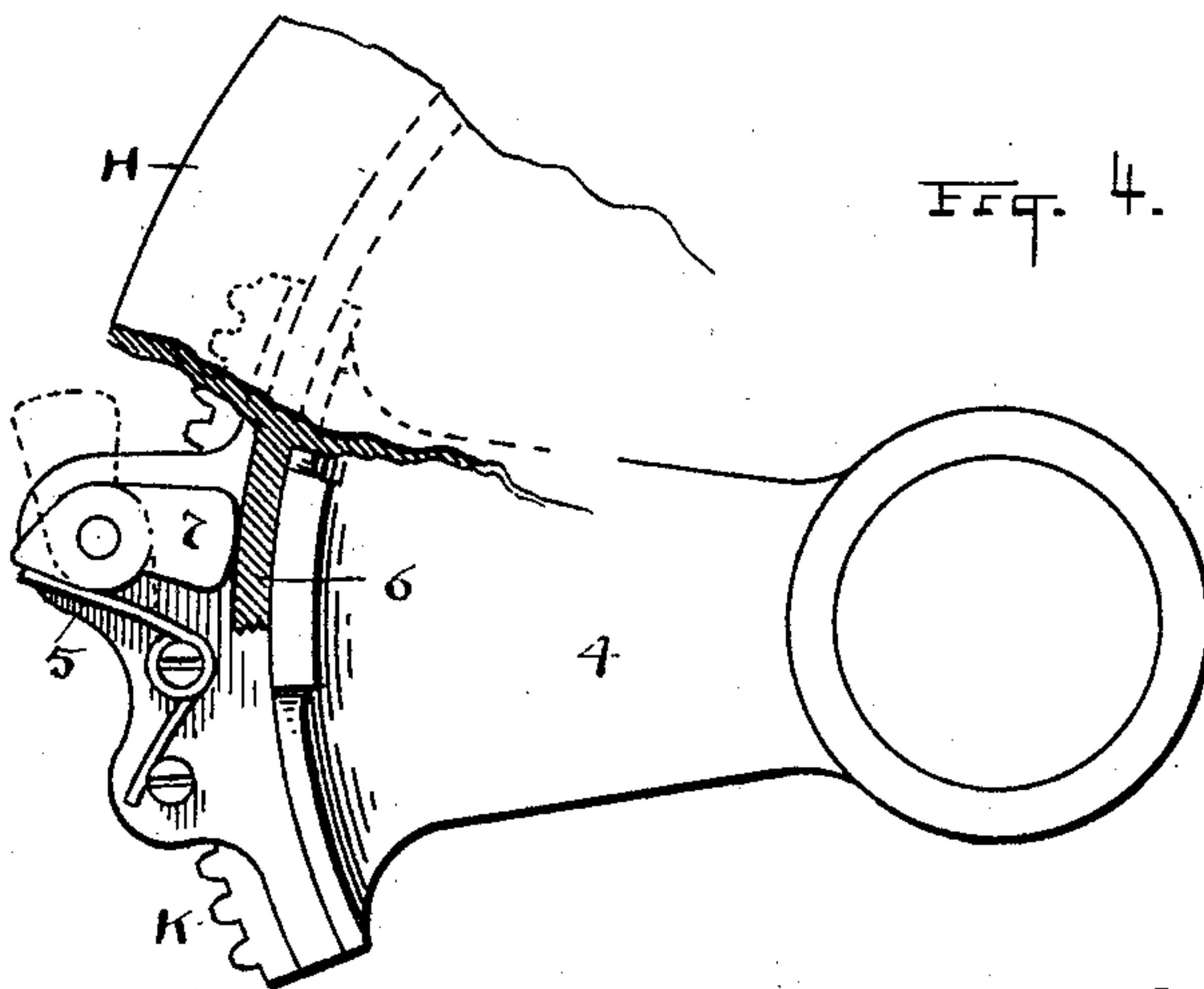


Fig. 4.

ATTEST  
R. B. Moser  
H. C. Mydner

INVENTOR  
Frank A. Burnham

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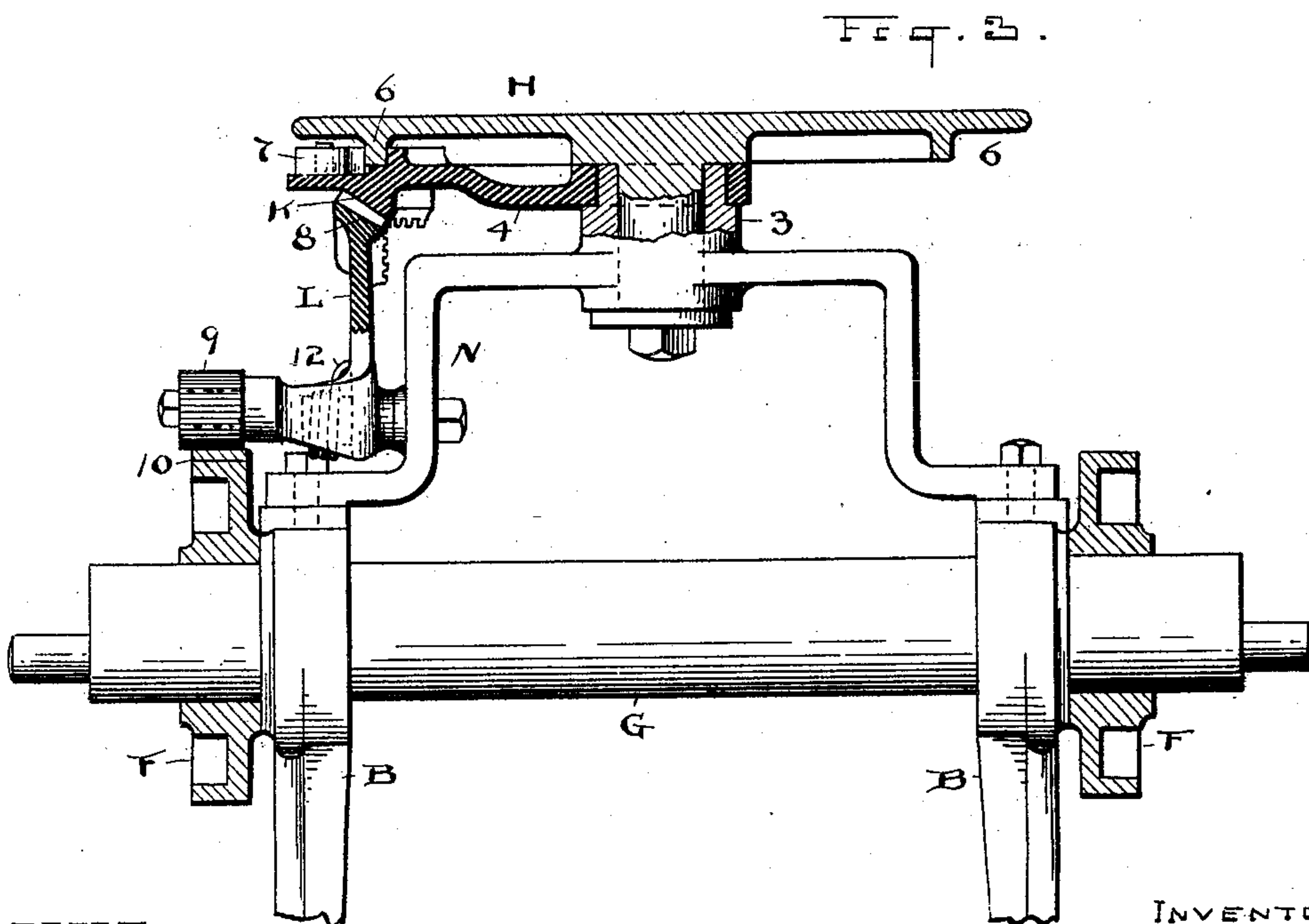
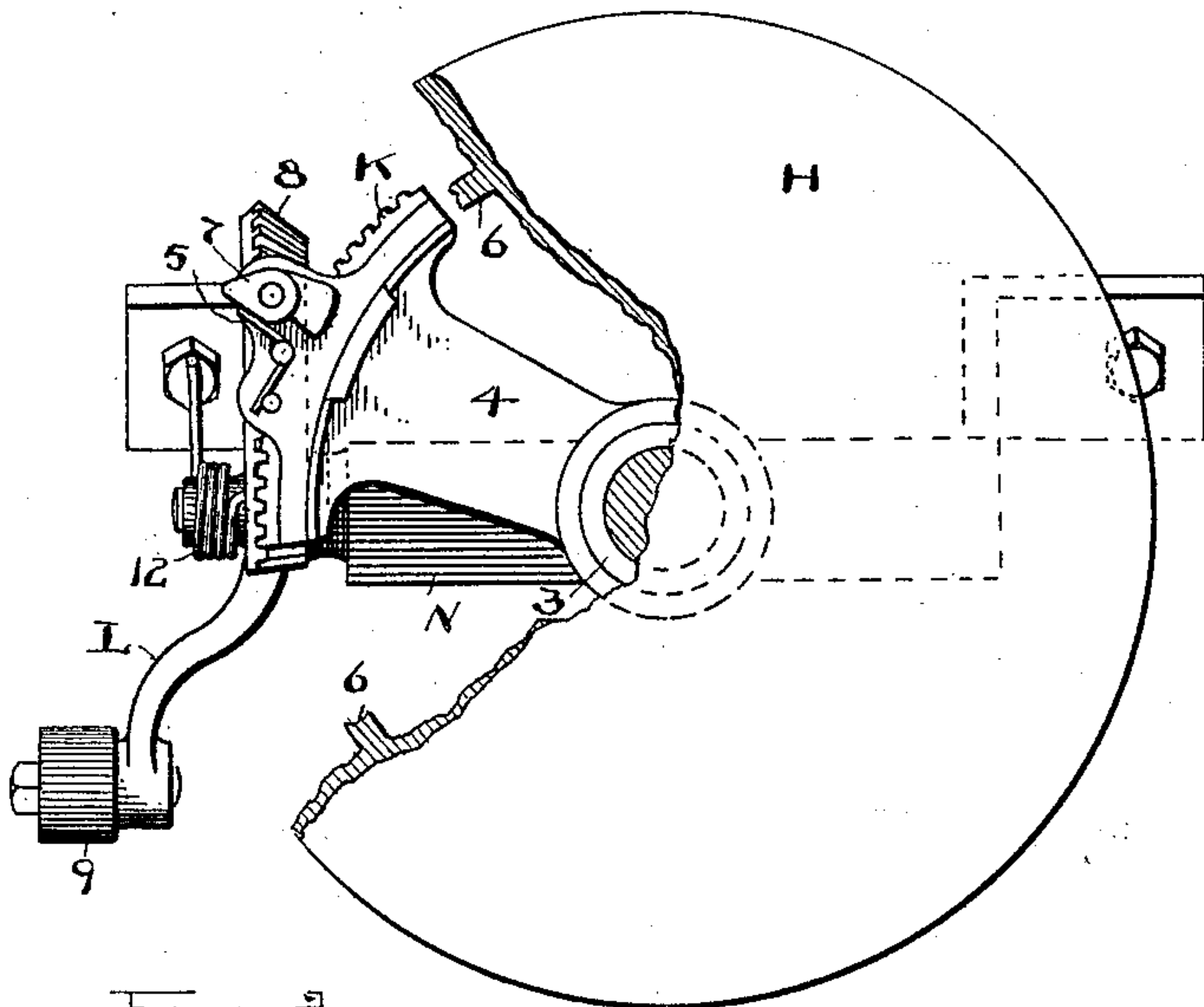
2 Sheets—Sheet 2.

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MEANS FOR ACTUATING INK DISKS IN PLATEN PRINTING PRESSES.

No. 603,496.

Patented May 3, 1898.



ATTEST  
R. S. Moore  
H. C. Mydra

INVENTOR  
Frank A. Burnham

BY H. J. Fisher ATTORNEY



# UNITED STATES PATENT OFFICE.

FRANK A. BURNHAM, OF CLEVELAND, OHIO, ASSIGNOR TO THE CHANDLER & PRICE COMPANY, OF SAME PLACE.

MEANS FOR ACTUATING INK-DISKS IN PLATEN PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 603,496, dated May 3, 1898.

Application filed July 22, 1897. Serial No. 645,554. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK A. BURNHAM, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Means for Actuating Ink-Disks in Platen Printing-Presses; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to platen printing-presses; and the object of the invention is to provide means whereby the ink-distributing disk may be noiselessly rotated and whereby it can promptly be thrown out of rotation at the will of the operator.

To these ends the invention consists in the construction and combination of parts, substantially as shown and described, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a side elevation of a printing-press embodying my invention. Fig. 2 is an enlarged plan view of the ink-disk, partly broken away at one side and disclosing the actuating mechanism immediately beneath the same. Fig. 3 is an elevation, partly in section, of the mechanism shown in Fig. 2. Fig. 4, Sheet 1, is an enlarged plan view of part of the mechanism shown in Fig. 2.

Hitherto in these presses a pawl-and-ratchet mechanism has been employed to rotate the ink-distributing disk; but so much noise has always attended the operation of this mechanism that it has been seriously objected to on this account. My invention therefore is directed primarily to the remedying or removal of this objection, while at the same time I have sought otherwise to improve the operations of the press in this particular.

Referring now to the drawings, A represents the frame of the press, and B the bed and its supports, pivoted on the frame A.

C is the usual large gear, driven by power-pinion D and transmitting power through connecting-rod E to the ink-roller frame F through back shaft G, supported in the ink-roller frames. No novelty is claimed herein for these several parts.

Now in order to rotate the ink-distributing disk intermittently and regularly I support on the hub 3, which carries said disk, a segment K, having an arm 4, with an eye engaged freely over said hub and so as to turn thereon without affecting the said disk. The disk H has a flange 6 about its bottom inward from its edge, and on the segment K outside of said flange 6 is pivoted a small friction-cam 7, so constructed and arranged that when said gear is carried in one direction the cam will engage the said flange and carry the disk with it, and when carried in the reverse direction will be out of engagement and leave the disk where it was carried or rotated. Now in order that this operation may be effected I employ a bell-crank L, pivoted in its angle on the side of the disk-supporting bracket N and having a segment-gear 8 on one arm meshing with gear K and a small roller 9 on the other arm resting on a curved track or cam 10 on the top of the ink-roller frame F. The arm carrying roller 9 is bent or extended laterally, as seen in Fig. 3, to reach the cam-bearing 10 on frame F, and a suitably-strong spring 12 is arranged at the angle of bell-crank lever L and in engagement therewith to carry the said arm and the gear K back to starting position after each forward movement. The forward movements are produced by the oscillations of the ink-frame F about the axis of back shaft G, as usual. Thus, referring to Fig. 1, suppose the press to be at work and the ink-rollers to be carried upward over the bearers 14 onto the ink-disk H. As this occurs the rear of the frame F descends and the spring 12 causes the crank-lever L to follow this movement and take its position forward somewhat on the cam 10 and at the same time rotates the gear K back to initial position ready to engage disk H. Then as ink-roller frame F rises at the rear the lever L is positively actuated, and the cam or friction lock 7 engages flange 6 on disk H, and the said disk has a corresponding rotation until the parts come to the position of momentary rest shown in Fig. 1. The small engaging cam 7 has a spring 5 bearing against it of just enough tension or pressure to always keep it in work-



ing relation and yet not enough to allow the said cam to slide noiselessly on the flange 6 in the back movement of gear K.

5 The gears K and 8 are always in engagement, and they are so constructed and the whole arrangement and operation are such that no perceptible noise whatever occurs in either of their joint movements.

10 It will be remembered that when the parts are positioned as in Fig. 1 and the gear K is carried back by the vibration of lever L the disk H remains stationary, and its partial rotation occurs when the gears travel to the left and the ink-rolls are off the ink-disk.

15 If for any reason it be desirable to prevent the rotation of disk H, it is only necessary for the operator to throw cam 7 into position, as seen in dotted lines, Fig. 4, and then the press may operate without rotating or affecting the  
20 said disk.

What I claim is—

In a printing-press of the kind described, the oscillating ink-roller frame and a cam thereon, and a bell-crank lever pivoted on the press-frame and having a roller on one branch 2 of said lever to travel on said cam and a segmental gear on the other branch, in combination with the ink-disk having a flange on its bottom, an arm pivotally supported beneath said disk and provided with teeth engaged by 3 said segmental gear to actuate the arm, and a pivoted cam on said arm to engage the flange on the ink-disk and thereby rotate said disk, substantially as described.

Witness my hand to the foregoing specification this 8th day of July, 1897.

FRANK A. BURNHAM.

Witnesses:

H. T. FISHER,  
R. B. MOSER.