

No. 674,359.

Patented May 14, 1901.

D. E. LAIN.
PRINTER'S LOCK-UP AND FURNITURE.

(Application filed Oct. 10, 1900.)

(No Model.)

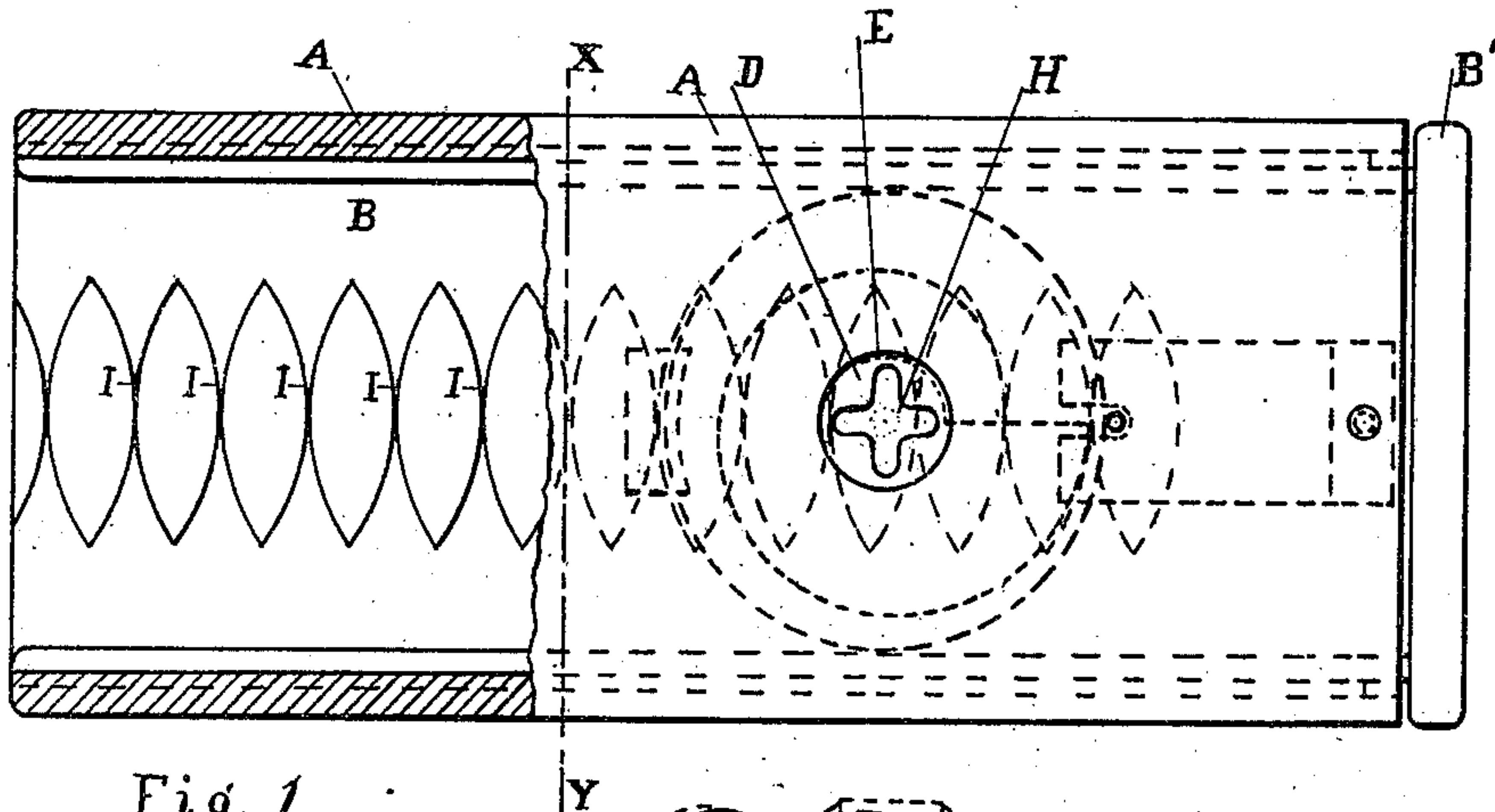


Fig. 1.

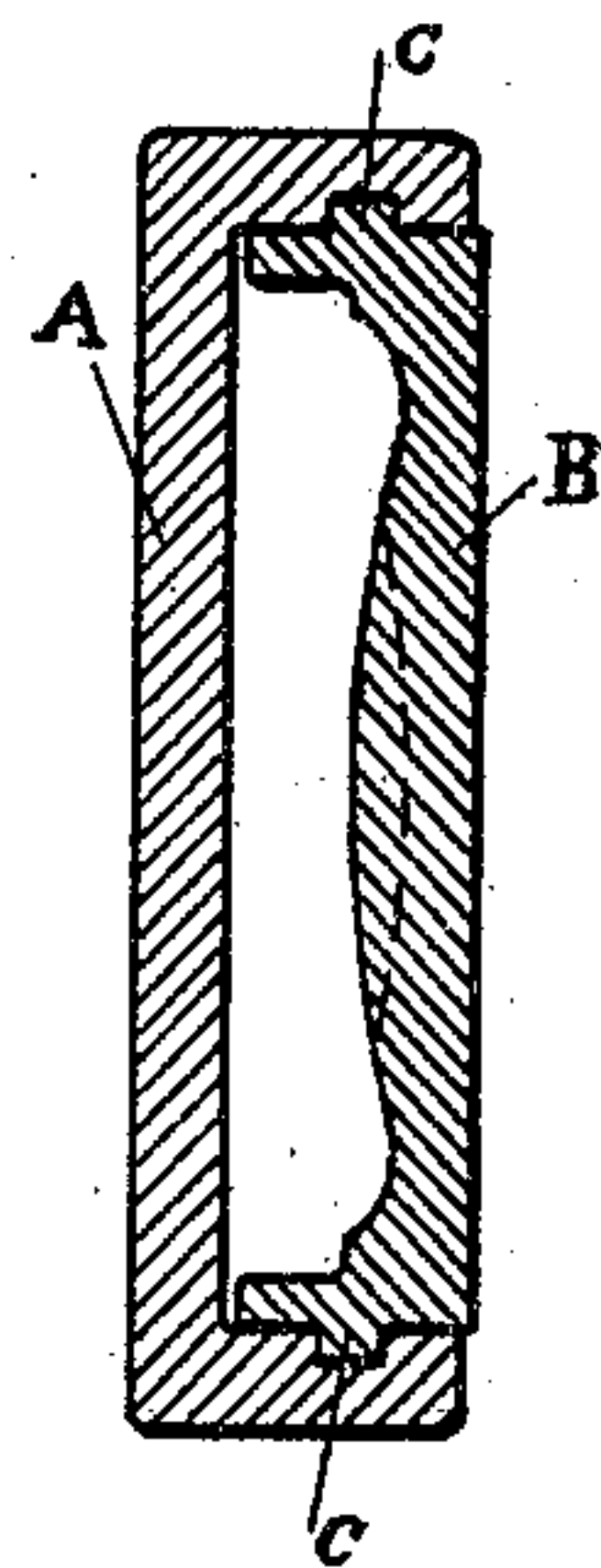


Fig. 2.

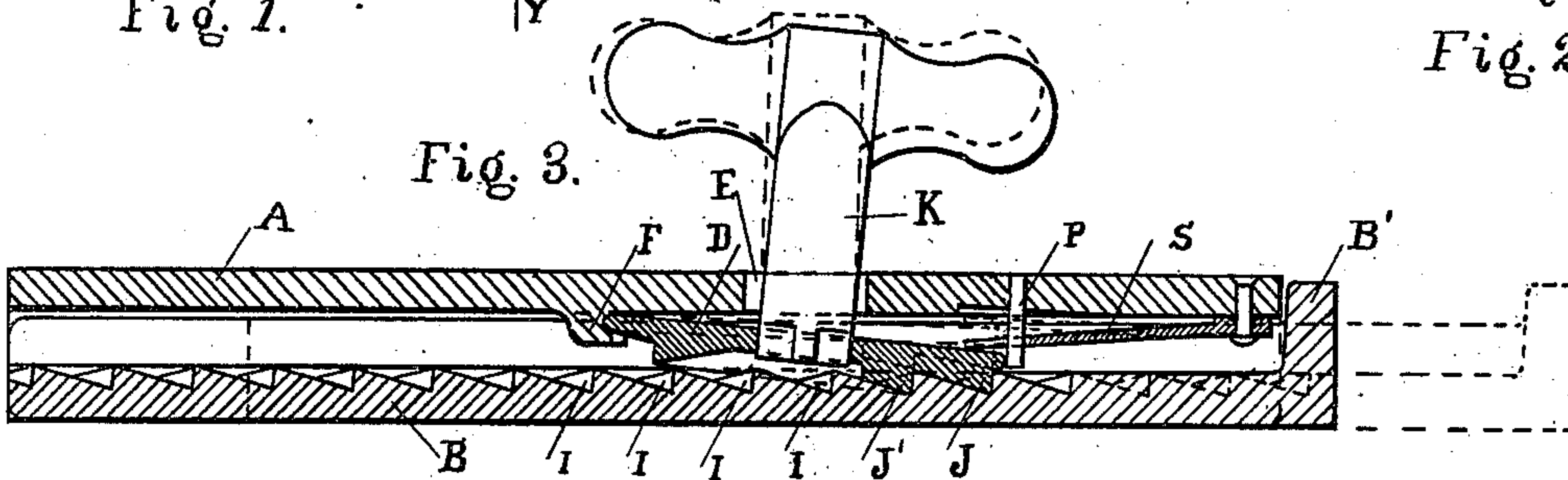


Fig. 3.

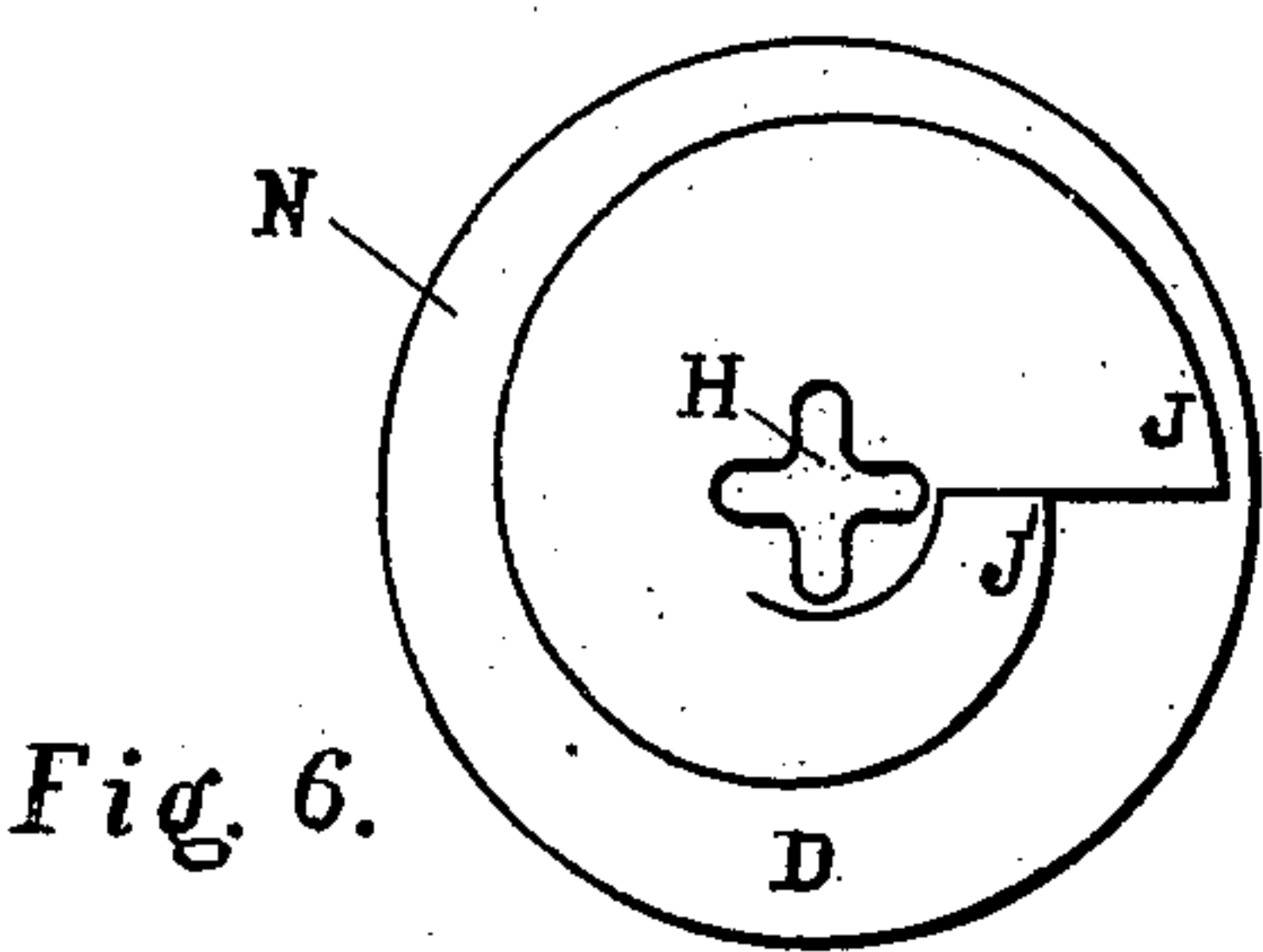


Fig. 6.

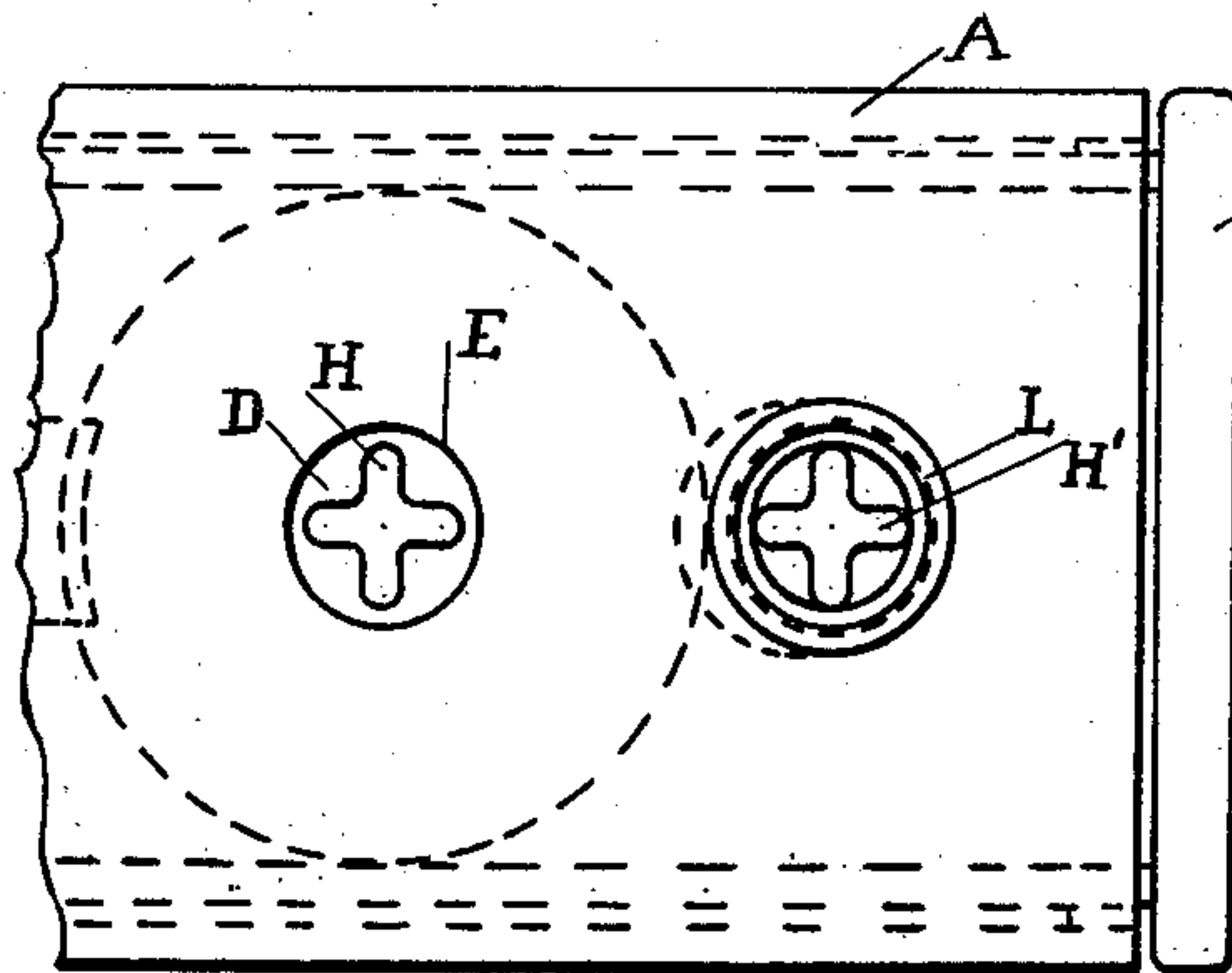


Fig. 7.

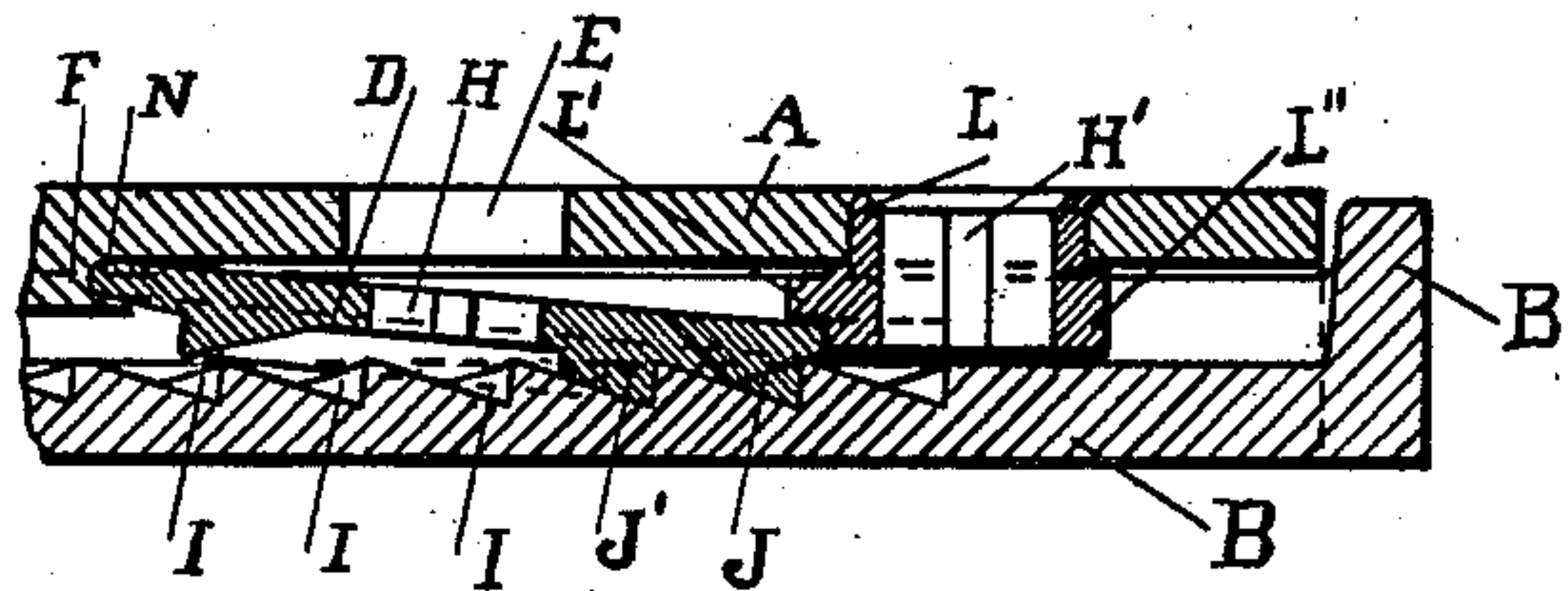
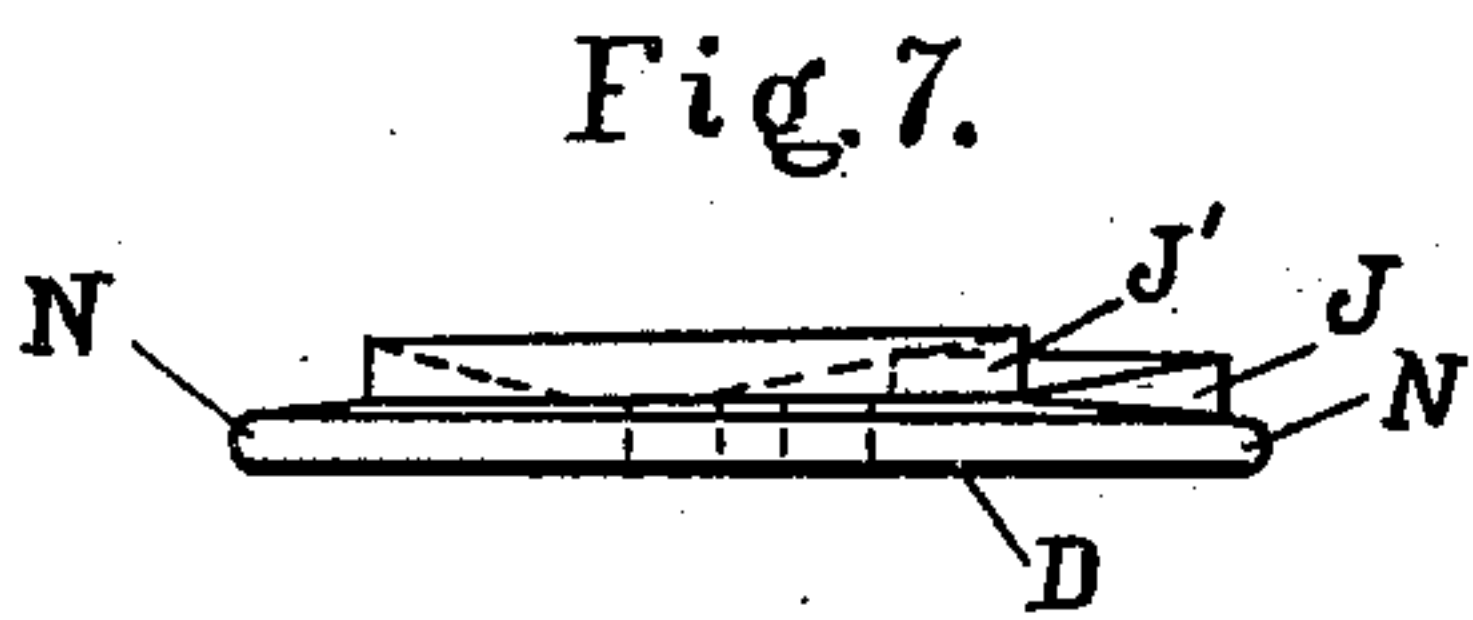


Fig. 9.

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PRINTER'S LOCK-UP AND FURNITURE.

SPECIFICATION forming part of Letters Patent No. 674,359, dated May 14, 1901.

Application filed October 10, 1900. Serial No. 32,613. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. LAIN, a citizen of the United States, and a resident of Middletown, in the county of Orange and State of New York, have invented certain new and useful Improvements in Printers' Lock-Ups and Furniture, of which the following is a specification.

My invention relates to an improvement in printers' lock-ups and furniture; and it consists of two channel-bars tongued and grooved to move longitudinally within each other. A conical cam-wheel lying between the two bars finds a bearing on one bar and engages with a rack on the other bar. The revolution of this cam extends the lock-up.

Reference being had to the accompanying sheet of drawings, in which similar characters refer to similar parts, Figure 1 is a plan view of my new lock-up with a portion of the upper part removed. Fig. 2 is a vertical cross-section of Fig. 1 on a plane through line X Y. Fig. 3 is a side elevation in section on a medial vertical plane. Fig. 4 is a plan view of a portion of my new lock-up, in which the internal mechanism is slightly different from that illustrated in Figs. 1 and 3. Fig. 5 is a side elevation of Fig. 4 in section on a medial vertical plane. Fig. 6 is a plan view of the conical cam-wheel, and Fig. 7 is a side elevation of Fig. 6.

In Figs. 1 and 3, A is the larger channel-bar, and B is the smaller. Tongues C, on the outside of the sides of B, lie in grooves on the inside of the sides of A. The bars may thus move longitudinally on each other. One end of the bar B is provided with the foot B'. A rack I I is formed in the bottom of bar B, and a bearing F is formed on the lower side of the upper part of bar A.

Now referring to Figs. 6 and 7, a circular disk D has a rounded periphery N and carries on one side the conical cam J J'. Through its center is a cruciform keyhole H. The disk D is of a diameter slightly smaller than the width of the channel in bar B and easily lies in this channel. One edge of the disk D is placed in the bearing F in bar A, and the other edge is allowed to lie on the bottom of the channel in bar B, when the cam J J' will lie in two of the teeth of rack I I. A pin P

projects downward from the upper wall of bar A in such a position as to prevent the disk D from disengaging with the bearing F. A spring S is fastened to the upper wall of bar A and presses downward on the disk D, tending to keep it in engagement with the rack I I. A hole E through the upper wall of bar A permits the entry of the quoin-key K into the keyhole H. When the key K is engaged with the disk D, as in Fig. 3, if it be turned in a clockwise direction the cam J J', working in the rack I I, will drive the bar B toward the position indicated in dotted lines, and it will hold it in any position thus taken. When it is desired to return the bar B to its former position, it can be pressed back while the disk is being turned in a counter-clockwise direction. Also to return the bar B quickly if the key K and disk D be turned about the bearing F by pressing backward on the key they will occupy the position indicated by dotted lines. Then the disk D being entirely above the rack I I the bars can move on each other without any obstruction.

In Figs. 4 and 5 the cylinder L' is free to turn in a hole in the upper wall of bar A and is held in place by the upset portion L in a countersunk portion of the hole. The cylinder L' is so placed that it prevents the disk D from disengaging with the bearing F. A lip L' on the cylinder locks the disk D in engagement with the rack I I when the cylinder is turned in the position shown in Figs. 4 and 5. When not in this position, the disk can be turned about the bearing F by pressing back on the key K, as in Fig. 3. A cruciform keyhole H' in cylinder L' provides for the rotation of the cylinder by the quoin-key K. In other respects the operation of this form is similar to that of the form illustrated in Figs. 1 to 3, as above described.

I do not wish to be understood as limiting myself to the precise mechanical construction here shown and described.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a printer's lock-up or similar device the combination of two bars so engaged as to move only longitudinally on each other, a bearing on one bar, a rack on the other bar, a disk which has on one face a cam and lies

between said bars with the periphery of said disk seated in said bearing and said cam engaged with said rack, means for holding said cam in engagement with said rack, and means
5 for revolving said disk and said cam.

2. In a printer's lock-up or similar device the combination of two channel-bars matched together to move only longitudinally on each other and together forming a hollow bar, a
10 bearing on one bar, a rack on the other bar, a disk which has a cam on one face and lies in the hollow between the two bars in such manner that the periphery of said disk may lie in and move in said bearing and the cam may
15 engage with the teeth of said rack, means for revolving said disk in such manner that its periphery may move through said bearing while said cam moves in engagement with the teeth of said rack, means for swinging said
20 disk in said bearing which may disengage said cam from said rack, and means which may serve to hold said cam in engagement with said rack.

3. In a printer's lock-up or similar device
25 the combination of two channel-bars matched

together to move only longitudinally on each other and together forming a hollow bar, a bearing on one bar, a rack on the other bar, a disk which has a cam on one face and lies in the hollow between the two bars in such a
30 manner that the periphery of said disk may lie in and move in said bearing and the cam may engage with the teeth of said rack, means for revolving said disk in such manner that its periphery may move through said bearing
35 while said cam moves in engagement with the teeth of said rack, means for swinging said disk in said bearing in such manner that said cam may become disengaged from said rack, a catch which may be moved over the edge
40 of said disk when said cam is in engagement with said rack, and means for moving said catch in engagement with said disk.

Signed at Middletown, in the county of Orange and State of New York, this 25th day
45 of September, A. D. 1900.

DAVID E. LAIN.

Witnesses:

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