

No. 625,771.

Patented May 30, 1899.

B. HUBER.

INKING APPARATUS FOR PRINTING PRESSES.

(Application filed June 30, 1898.)

(No Model.)

3 Sheets—Sheet 1.

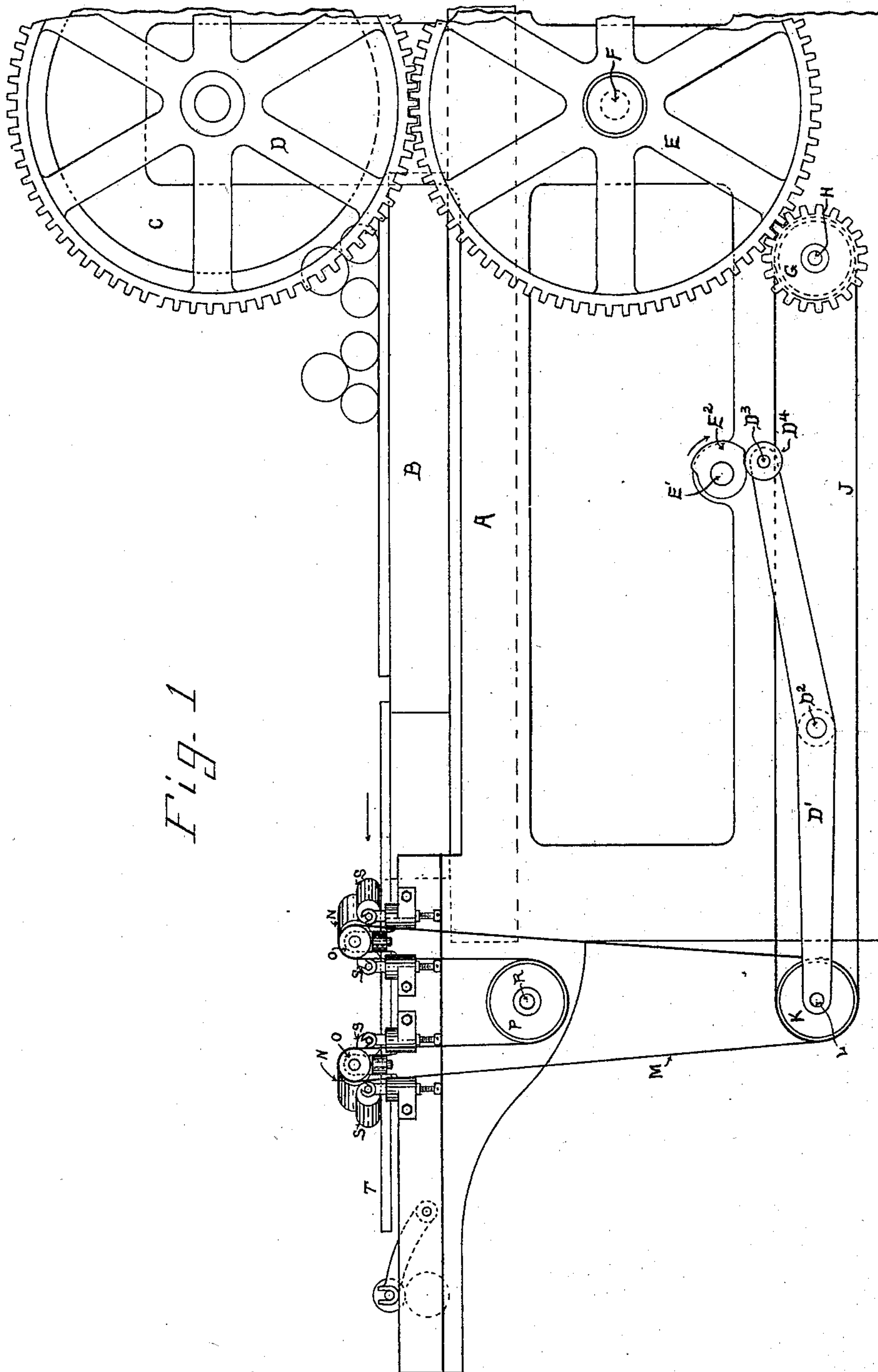


Fig. 1

Witnesses  
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Robert L. Crossman

Inventor  
Berthold Huber.

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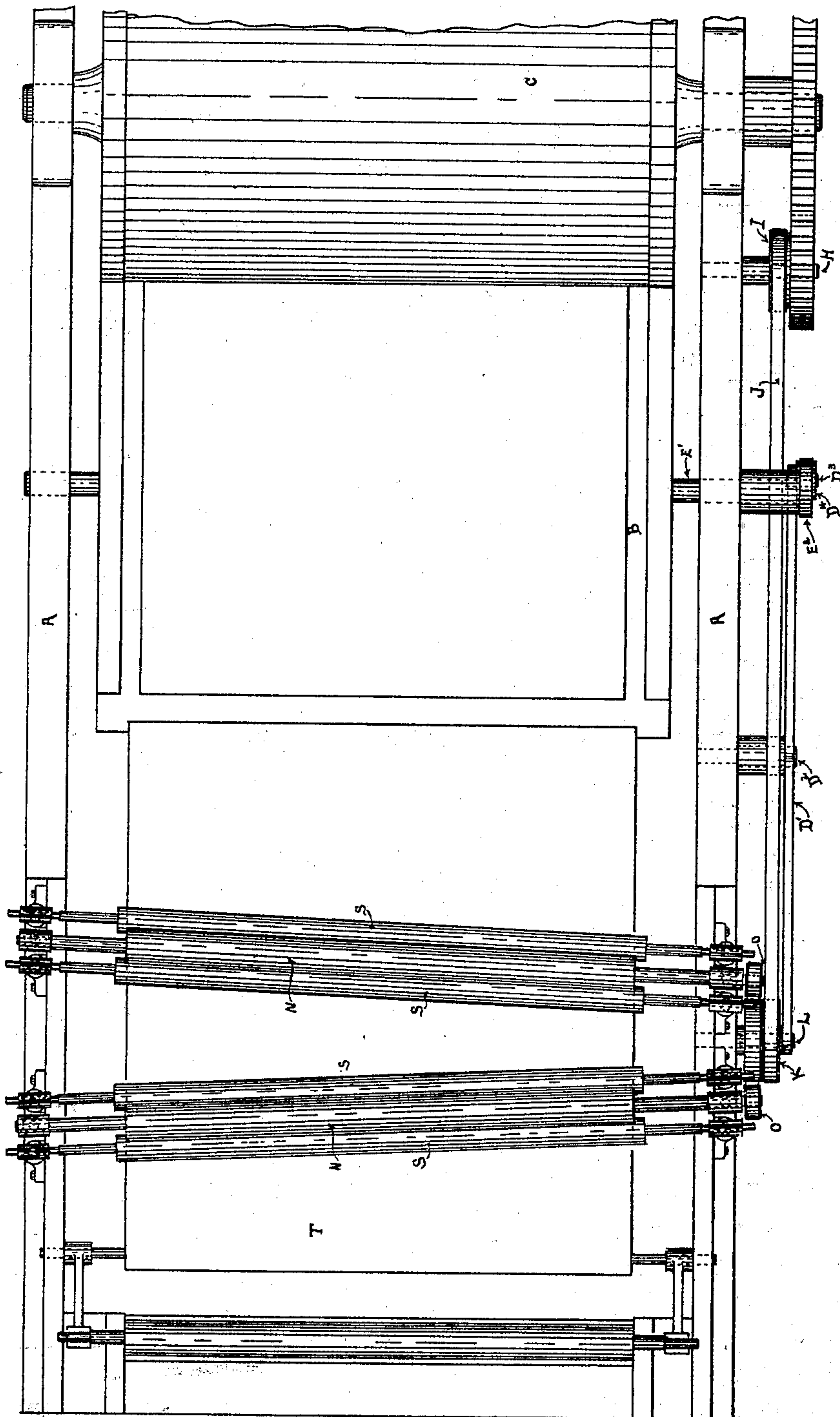
INKING APPARATUS FOR PRINTING PRESSES.

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3 Sheets—Sheet 2.

Fig. 2



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3 Sheets—Sheet 3.

Fig. 3

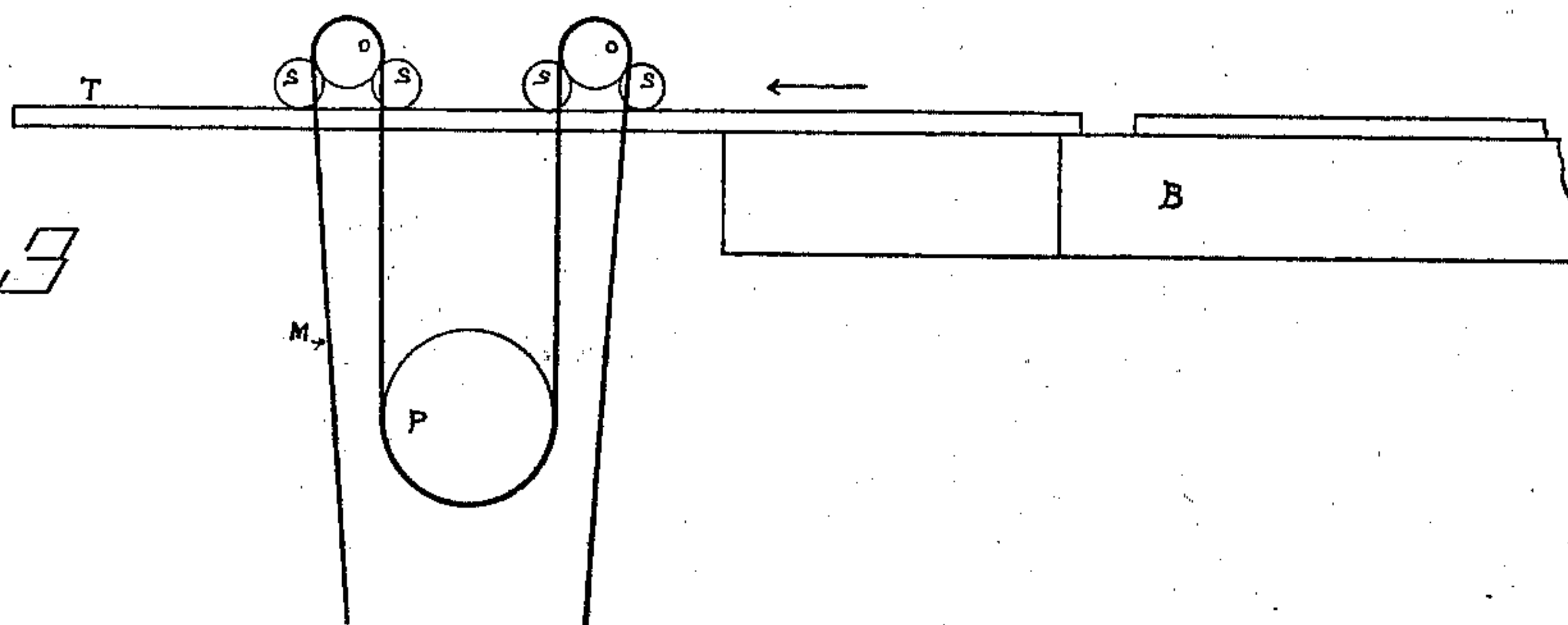


Fig. 4

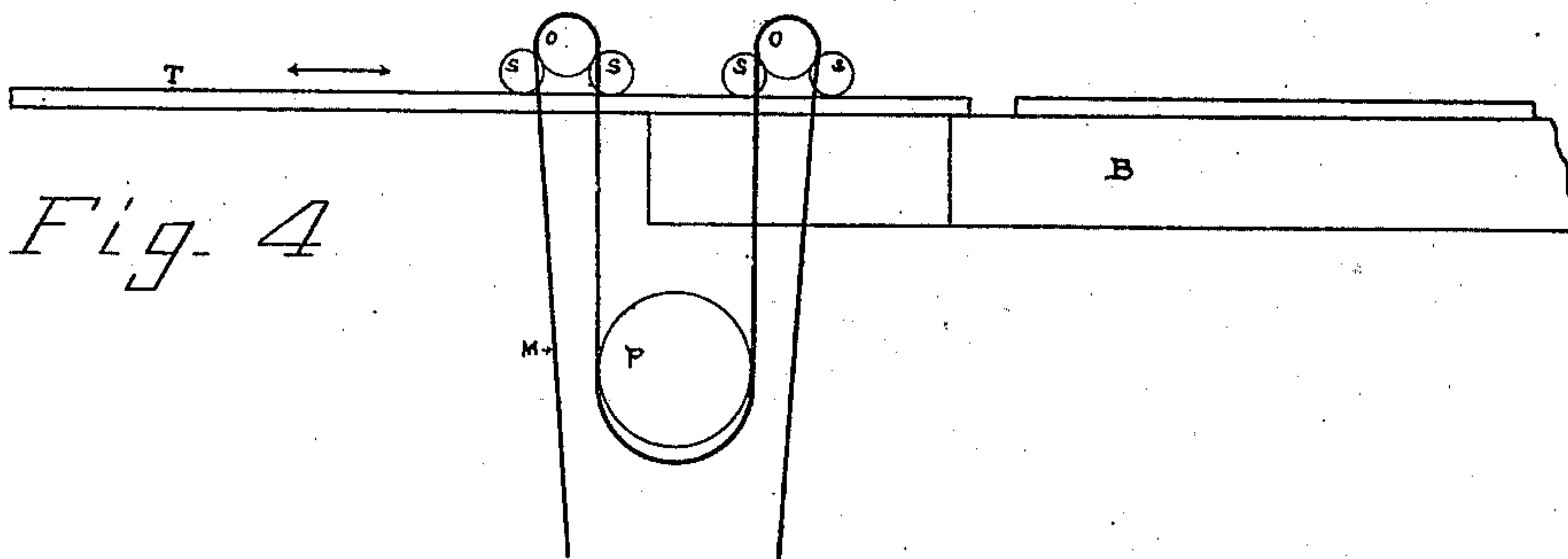


Fig. 5

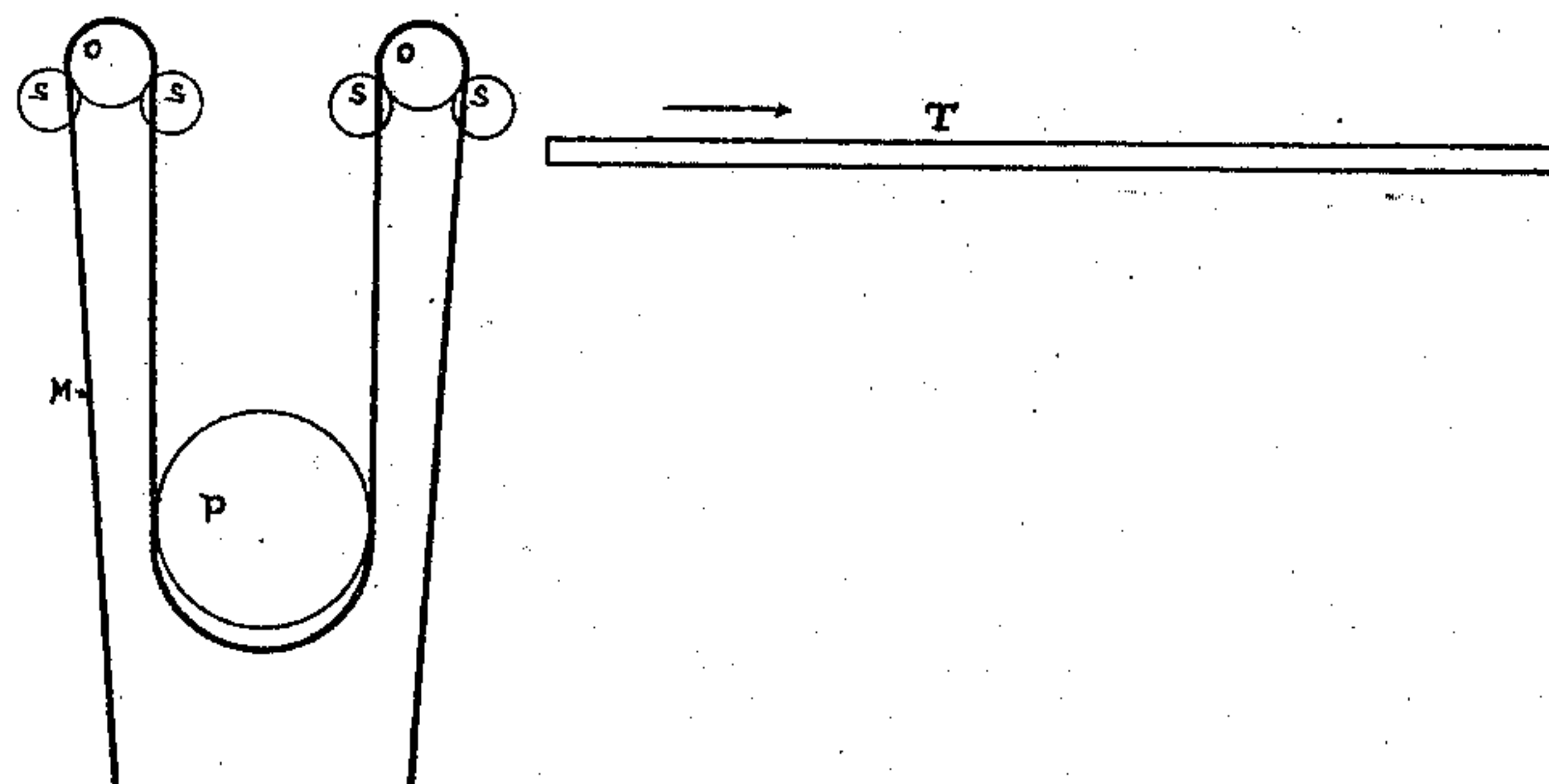
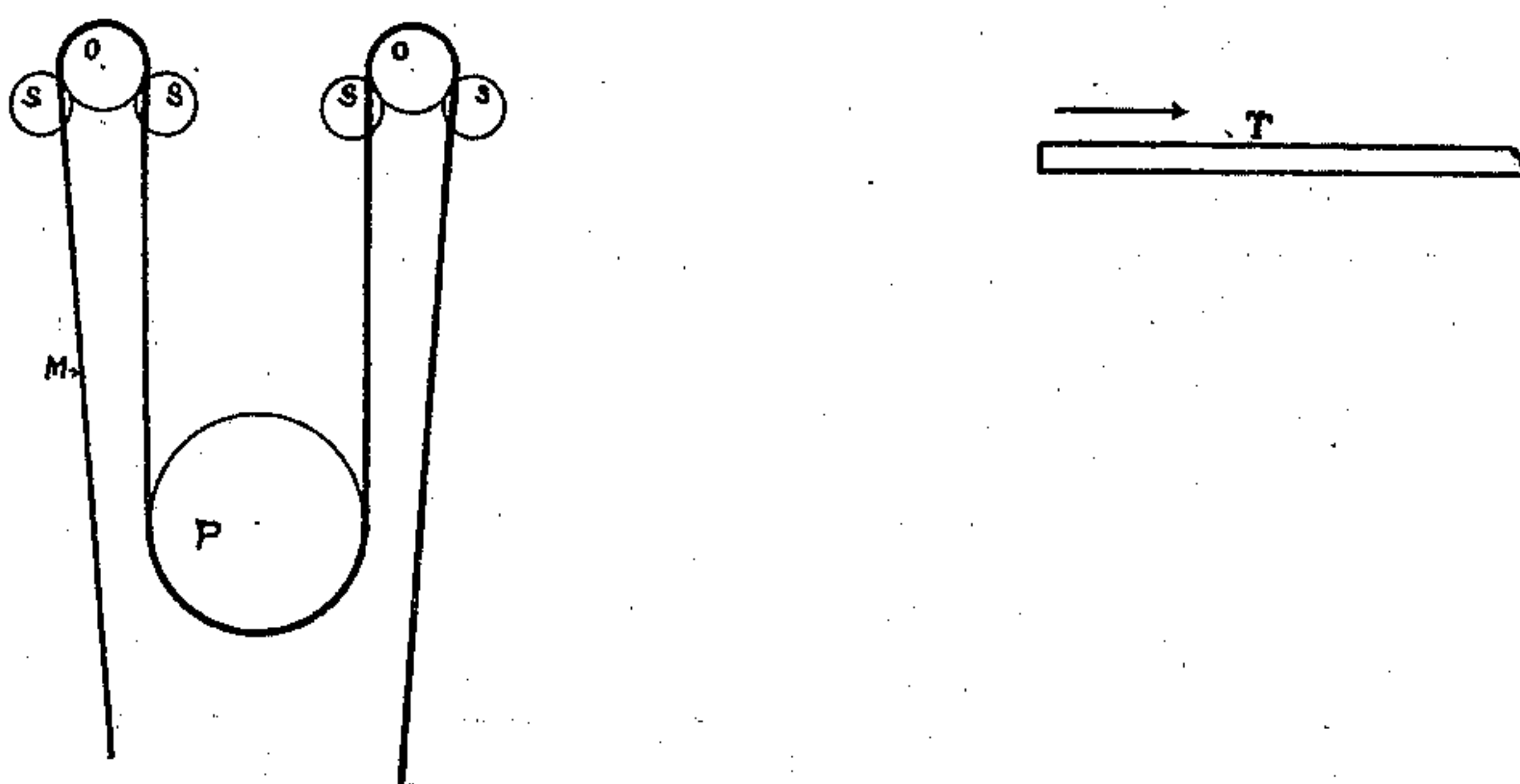


Fig. 6



Witnesses

W. K. Hodgman

Robert L. Crossman

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# UNITED STATES PATENT OFFICE.

BERTHOLD HUBER, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO THE  
HUBER PRINTING PRESS COMPANY, OF SAME PLACE.

## INKING APPARATUS FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 625,771, dated May 30, 1899.

Application filed June 30, 1898. Serial No. 684,893. (No model.)

*To all whom it may concern:*

Be it known that I, BERTHOLD HUBER, a citizen of the United States, residing at Taunton, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Inking Apparatus for Printing-Presses, of which the following is a specification.

My invention relates to that class of printing-presses having a reciprocating bed to carry the form and wherein the ink is fed by any suitable means from a fountain to an ink-table, which is also carried by the bed, the ink being distributed upon the ink-table by means of distributing-rollers and then carried by the ink-table to the form-rollers. In such printing-presses it has been customary to rotate the form-rollers by gearing or other suitable mechanism in unison with the speed and direction of the travel of the bed, but the distributing-rollers have been allowed to depend entirely on their frictional contact with the ink-table for rotation, and as during one stroke of the bed the ink-table is completely withdrawn from beneath them they are consequently found at rest or rotating in the opposite direction to the travel of the ink-table when it meets them on its return stroke. The result is that the distributing-rollers wear out more rapidly than the form-rollers.

The object of my invention is to provide means for rotating the distributing-rollers at substantially all times excepting when they are in frictional contact with the ink-table and in such a manner that they will always be rotating in unison with the speed and direction of the ink-table when they are first brought into frictional contact with it.

I attain the object of my invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a printing-press embodying my invention. Fig. 2 is a plan view of the same; and Figs. 3, 4, 5, and 6 are diagrams showing the relative positions of the ink-table and distributing-rollers at certain points of the stroke of the bed.

A designates the frame of the press.

B is the bed, which is reciprocated when in operation; C, the impression-cylinder, mount-

ed in its usual position. On one end of the cylinder C is mounted the gear D, which meshes with the intermediate gear E, which is mounted to turn on the pin F. The gear G is driven by the intermediate gear E and is mounted to turn on the pin H. The pulley I is fast to the gear G and by means of the belt J drives the wide pulley K, which is mounted to turn on the pin L, which is fast in one end of the lever D'. The wide pulley K, by means of the belt M, drives the riding rollers N N, the said belt M engaging the pulleys O O, mounted on the ends of the riding rollers N N, and the loose pulley P, which is mounted to turn on the pin R. The riding rollers N N have frictional contact at all times with the distributing-rollers S S S S and serve to drive them at certain times to correspond with the speed and direction of the travel of the ink-table. The lever D' is fulcrumed on the pin D<sup>2</sup> and has in one end the pin D<sup>3</sup>, on which is mounted to turn the roller D<sup>4</sup>. The cam-shaft E' has bearings in the frame A, and mounted on one end of it is the cam E<sup>2</sup>. The cam-shaft E' makes one turn during each complete stroke of the bed B and is driven by mechanism. (Not shown.)

The belts J and M travel in the same direction and at the same speed at all times.

In Fig. 1 I have shown the press when the bed B is on its backward or non-printing stroke and near the end of said stroke, and it will be seen that the distributing-rollers S S S S are being driven by both the ink-table T and the belt M, the latter acting through the riding rollers N N. At about this time the cam E<sup>2</sup> commences to press down the roller D<sup>4</sup>, and with it that end of the lever D', causing the pulley K to be raised a little and the belt M loosened, which leaves the distributing-rollers to be controlled entirely by the ink-table T until such time as the cam E<sup>2</sup> operates to tighten the belt M again and which does not occur until the ink-table T has passed from beneath the distributing-rollers S S S S on its forward or printing stroke.

Referring to Figs. 3, 4, 5, and 6, in Fig. 3 I have shown the parts in the same position as shown in Fig. 1 and when the cam E<sup>2</sup> is about to loosen the belt M and leave the control of the distributing-rollers to the ink-table



alone. In Fig. 4 I have shown the bed at the end of its backward stroke, and the belt M is loose and the distributing-rollers are controlled by the ink-table. In Fig. 5 I have shown the bed on its forward stroke and when the ink-table has just been withdrawn from beneath the distributing-rollers, the belt M still being loose, but about to be tightened by the cam E<sup>2</sup>. In Fig. 6 I have shown the bed a little farther advanced on its forward stroke and when the cam E<sup>2</sup> has tightened the belt M, so that the distributing-rollers are controlled by it, and as the press continues to operate the belt M continues to control and drive the distributing-rollers until the bed again arrives in the position shown in Figs. 1 and 3 on its backward stroke. By using a belt, as M, to drive the riding rollers, and through them the distributing-rollers, I am enabled to vary the angle at which said rollers are set at will.

I am aware that it is old to provide angu-

lar distributing-rollers with disks or collars of the same or approximately the same diameter as the said distributing-rollers and to provide the inking-table with bearing-surfaces which extend past or beyond the inking-table so as to start the distributing-rollers in rotary motion before the inking-table reaches the same.

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

In a printing-press the following instrumentalities, viz: the pulley I continuously rotated in one direction, belt J, pulley K, belt M, pulleys O O, riding rollers N N, distributing-rollers S S S S, ink-table T, mechanism to tighten and loosen the belt M at certain times, all arranged to operate substantially as shown for the purpose specified.

BERTHOLD HUBER.

Witnesses:

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ROBERT M. OTIS.