

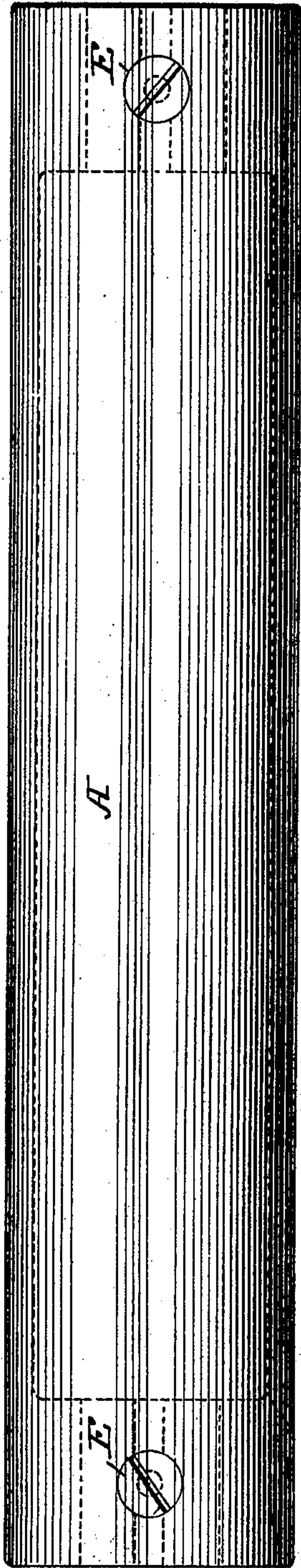
J. THOMSON.

INK DISTRIBUTING DEVICE FOR PRINTING PRESSES.

(Application filed July 1, 1901.)

(No Model.)

Fig. 1.



Witnesses

J. G. Hinkel
Sam. G. Gorman, Jr.

Fig. 2.

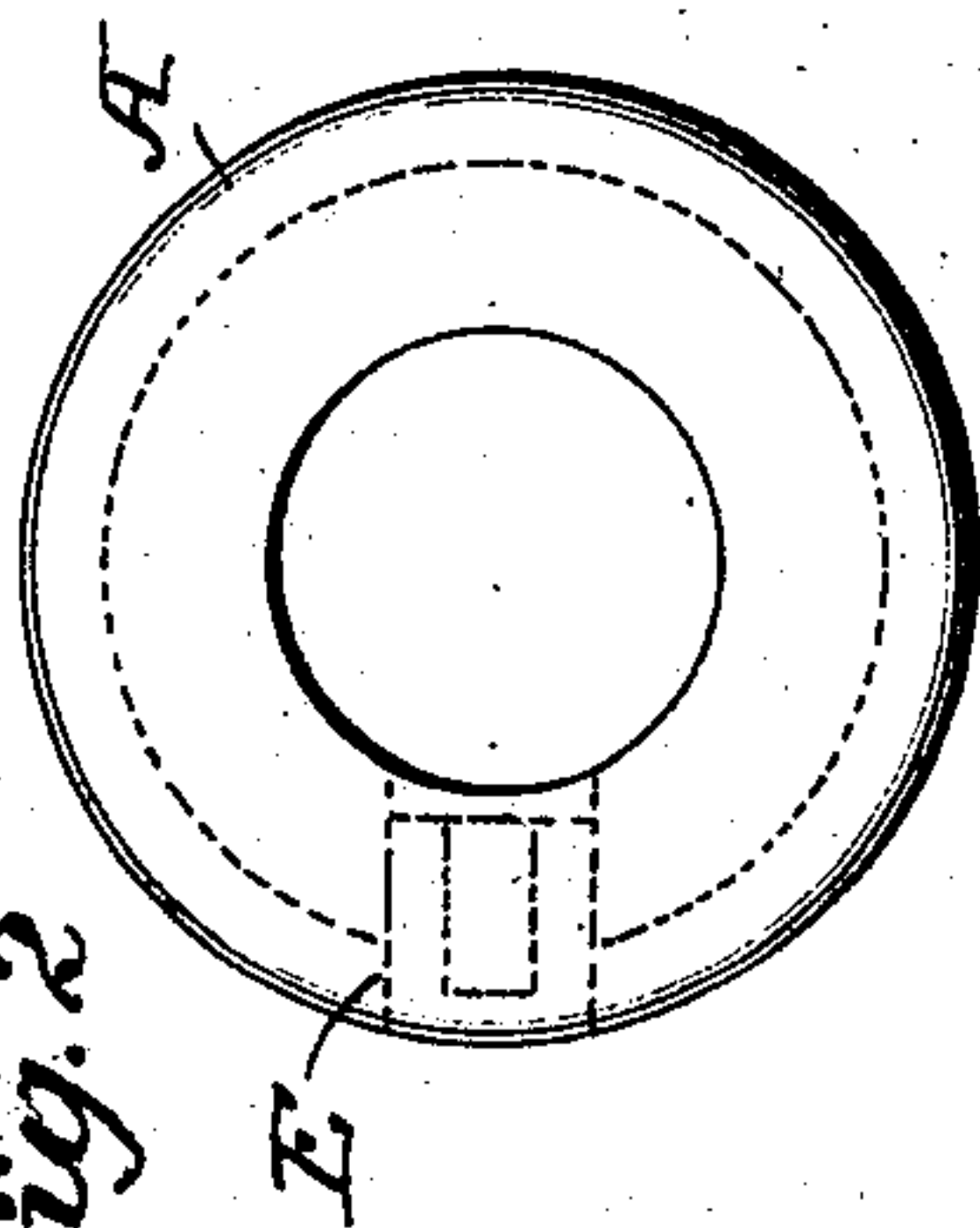


Fig. 3.

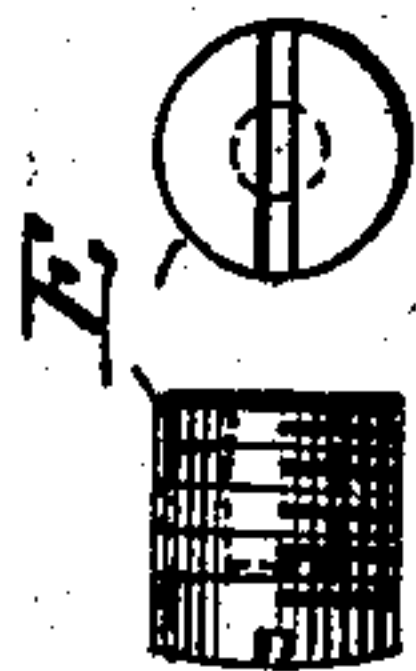


Fig. 4.

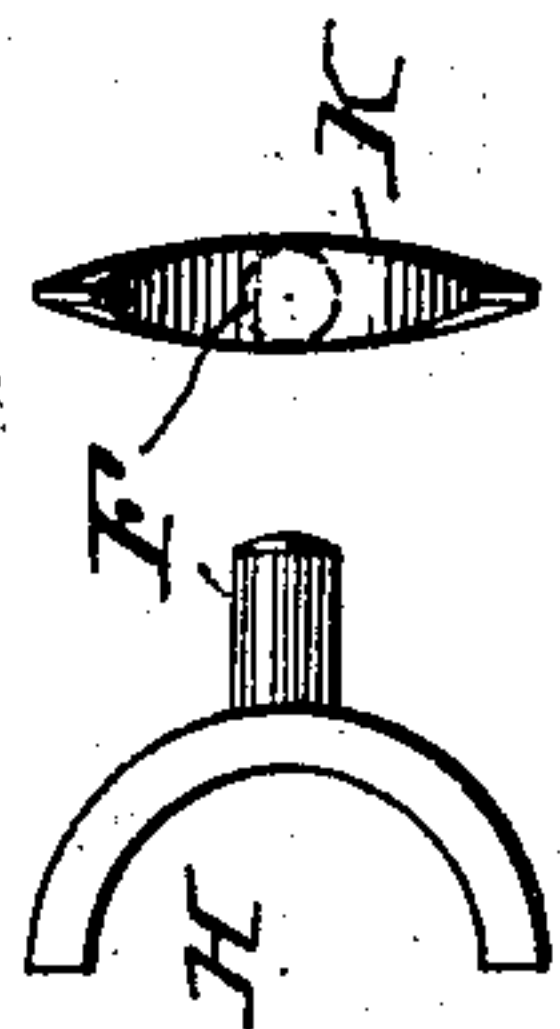


Fig. 6.

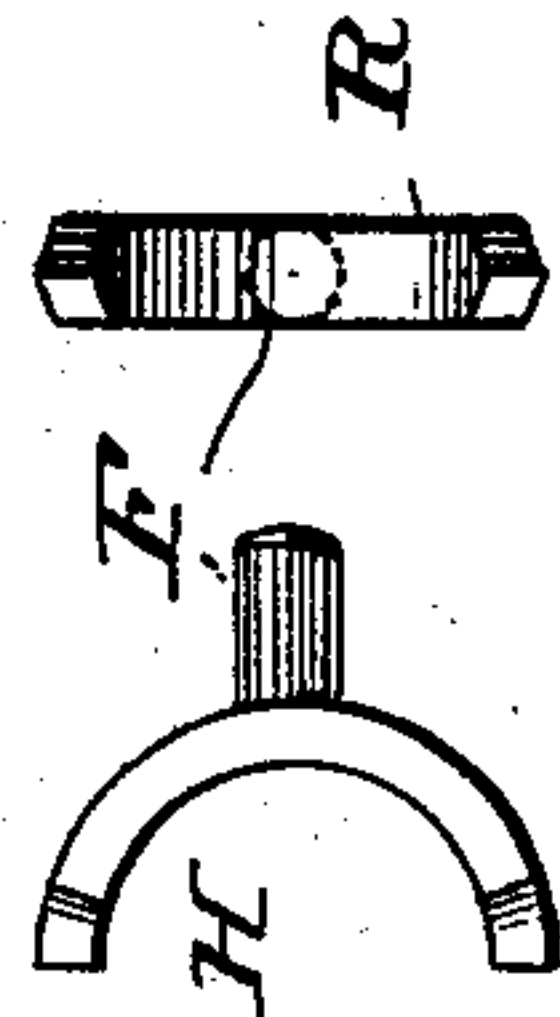
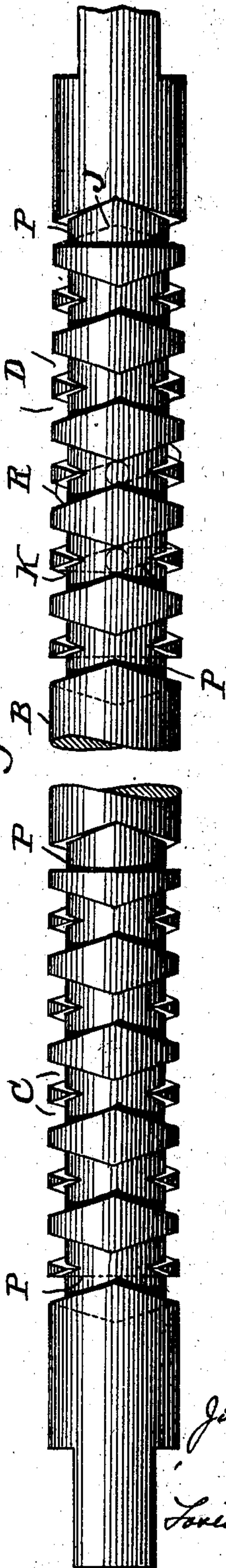


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN THOMSON, OF NEW YORK, N. Y., ASSIGNOR TO JOHN THOMSON PRESS COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

INK-DISTRIBUTING DEVICE FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 700,260, dated May 20, 1902.

Application filed July 1, 1901. Serial No. 66,715. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMSON, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Ink-Distributing Devices for Printing-Presses, of which the following is a specification.

My invention relates to ink-distributing devices for printing-presses, and more particularly to the self-contained type of distributing-roller known as the "duplex screw distributor" or "changer;" and it has for its object to provide an improved construction which shall involve the least amount of friction and provide the greatest extent of bearing-surface, hence increasing the durability, and which, moreover, shall be inexpensive to construct.

To these ends my invention consists in a changer distributing-roller embodying the features of construction substantially as hereinafter more particularly set forth.

Referring to the accompanying drawings, Figure 1 is a plan view of the changer-sleeve. Fig. 2 is an end view thereof. Fig. 3 is a side and end view of the changer hollow screw. Fig. 4 is a side and end view of the changer-crescent as previously constructed. Fig. 5 is a plan and end view of the changer screw-shaft, and Fig. 6 is a side and end view of the changer-crescent of improved construction.

It is well known by those skilled in the art that in the prior construction of the duplex or cross-screw changer there is excessive wear of the parts, producing loose joints and broken parts, which result in loss of effectiveness and increased cost of maintenance. It is the object of my present invention to provide means which shall effectually overcome these objections, and this I have accomplished by a construction substantially such as herein described.

Referring to the accompanying drawings, A represents the changer-sleeve. The changer-shaft, as B, is provided at each end with a duplex or cross screw, right and left pitch, as C D. The hollow screws E, mounted transversely in the ends of the sleeve, pro-

vide bearings for the spindles F of the crescents H. The general operation of the crescent in the duplex thread, vibrating at each end of the thread and causing it to traverse back and forth, thereby hauling the sleeve as it is revolved and producing the changer action, is too well known to here require description.

It will be seen that I use two crescents, one at each end of the changer-sleeve, each operating with its independent duplex thread on the changer-shaft, and it is manifest that in order to produce satisfactory results these crescents must coact harmoniously. Thus in making the compound threaded shaft it is necessary that the pitch of both the duplex threads shall be exactly alike and that the starting and ending of both threads of each of the duplex sections shall be on the same horizontal line. The result of this is to double the area of the bearing-surface, both in the crescents and in the sides of the threads, without materially increasing the work or resistance to be overcome. Consequently the advantage derived is increased durability and lessened cost of maintenance. I have found that a still further increase in the endurance and efficiency of the apparatus may be accomplished by increasing the time of reversal—that is, when the crescent is swung on its spindle F and the changer-sleeve is started back—and by changing the form of the crescent. Heretofore that portion of the thread where the crescent swings on its spindle has been a channel of the same width as the rest of the thread, as at J, which has necessitated that the crescent shall be of wedge-shaped section, as at K, Fig. 4, to permit it to pass this portion of the thread; but by cutting away the inside wall, as at P, widening the slot where the reversal takes place, it becomes feasible to use a crescent with parallel sides, as R, Fig. 6, thus increasing the time of the reversal, decreasing the shock, and increasing the area of bearing-surface, increasing the durability. This is well shown by the dotted outlines K and R of Fig. 5.

Having thus described my invention and pointed out what I consider the best manner of embodying the same, what I claim is—

In a printing-press, the combination with the changer-sleeve, hollow screw and crescent, of the changer screw-shaft, the duplex thread, or threads, of which are cut away, as
5 at P, to effect a relatively slow reversal of the changer-sleeve, substantially as described.
In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

JOHN THOMSON.

Witnesses:

HELEN M. BLANCHFIELD,
SAML. H. WEBB.