

No. 668,346.

Patented Feb. 19, 1901.

J. BREakey.
TYPE DISTRIBUTING APPARATUS.

(Application filed July 7, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

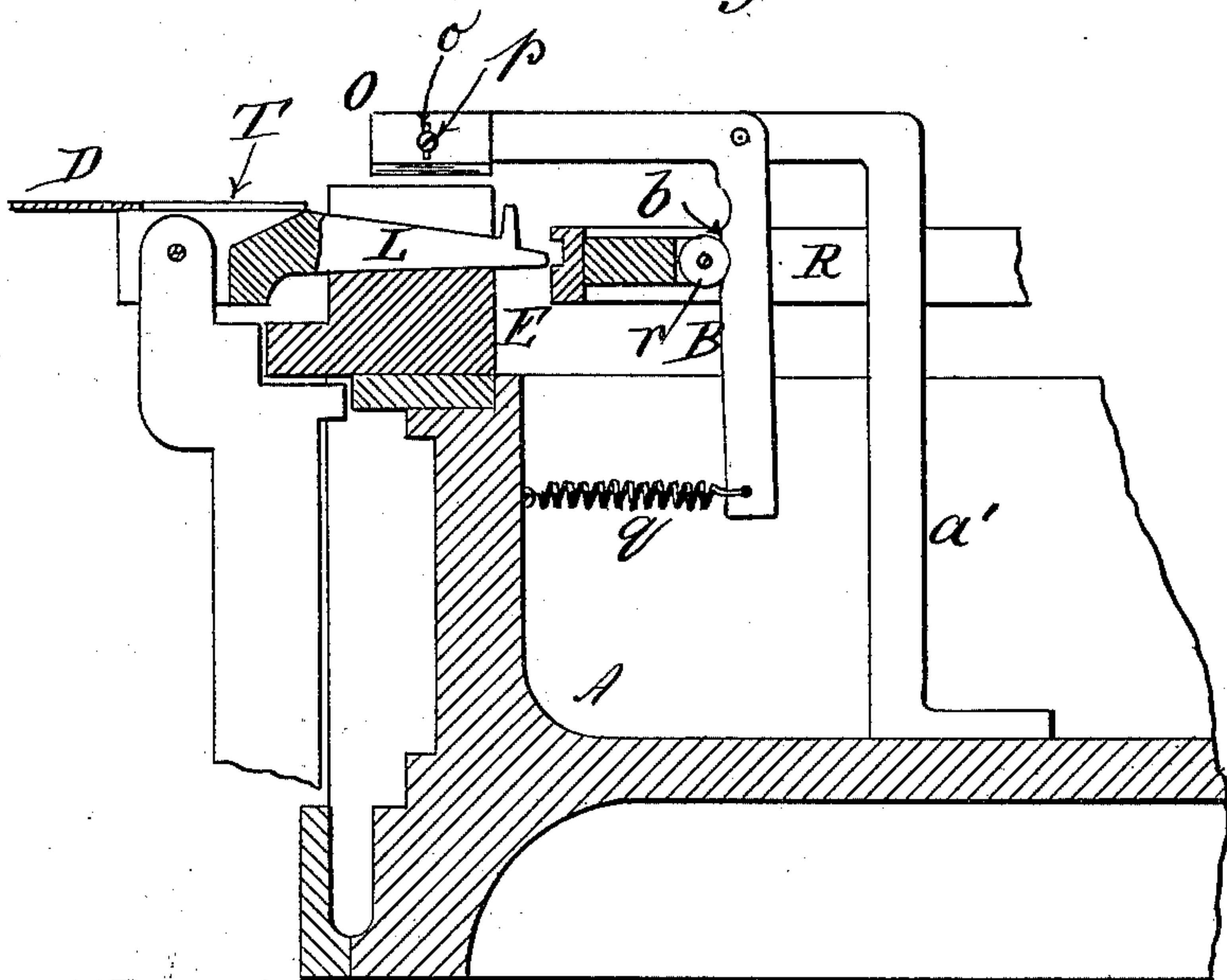


Fig. 2.

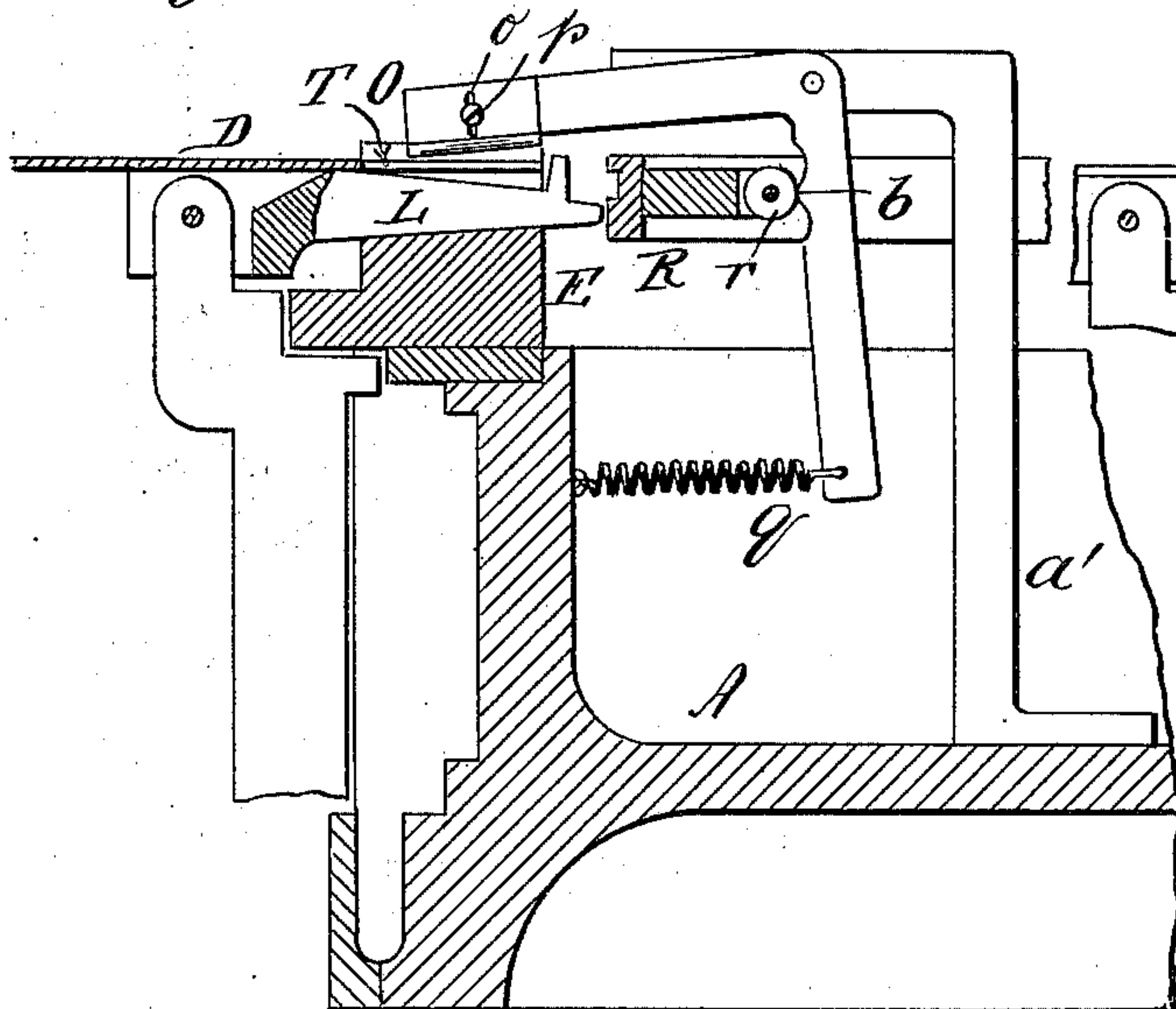
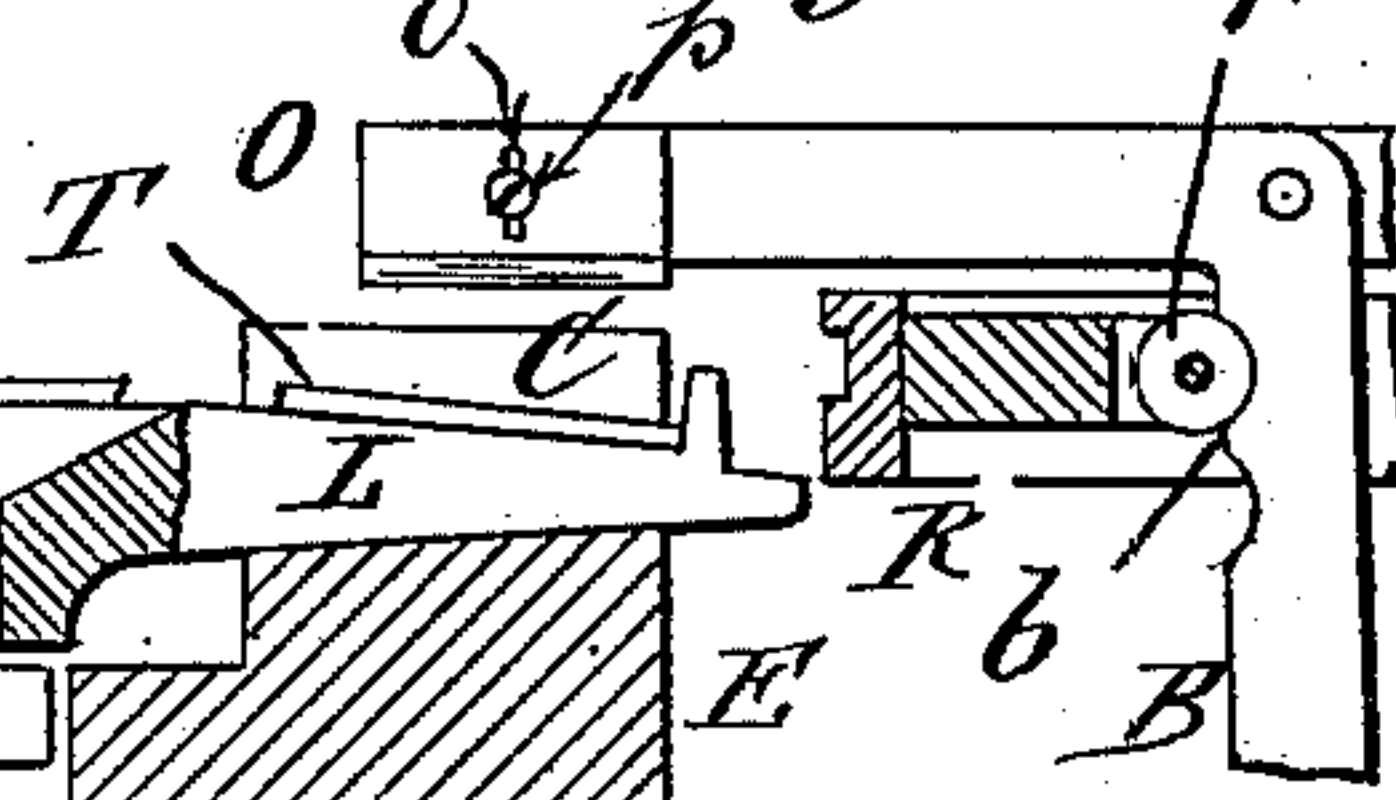


Fig. 3.



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2 Sheets—Sheet 2.

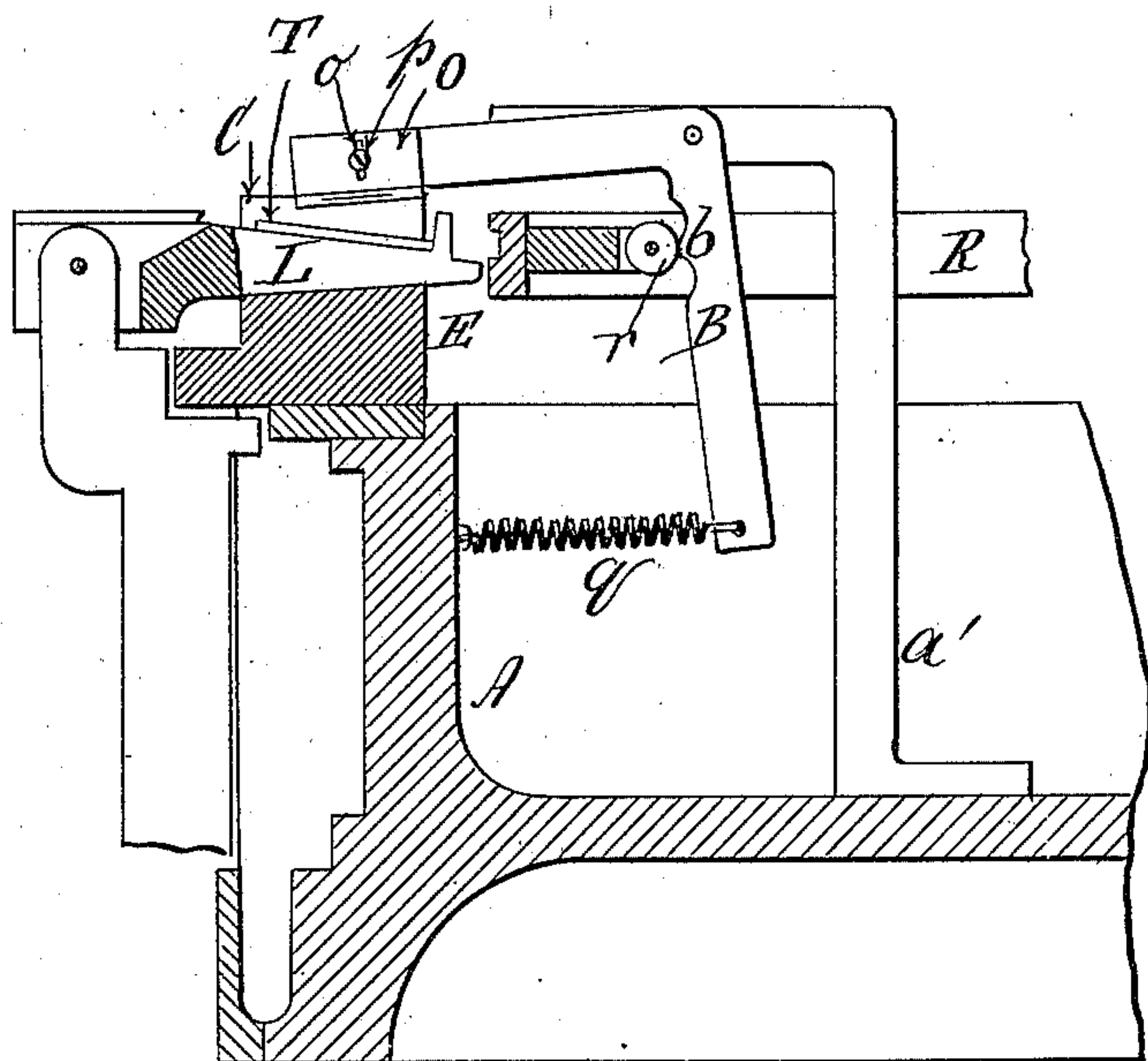


Fig. 4.

Fig. 5.

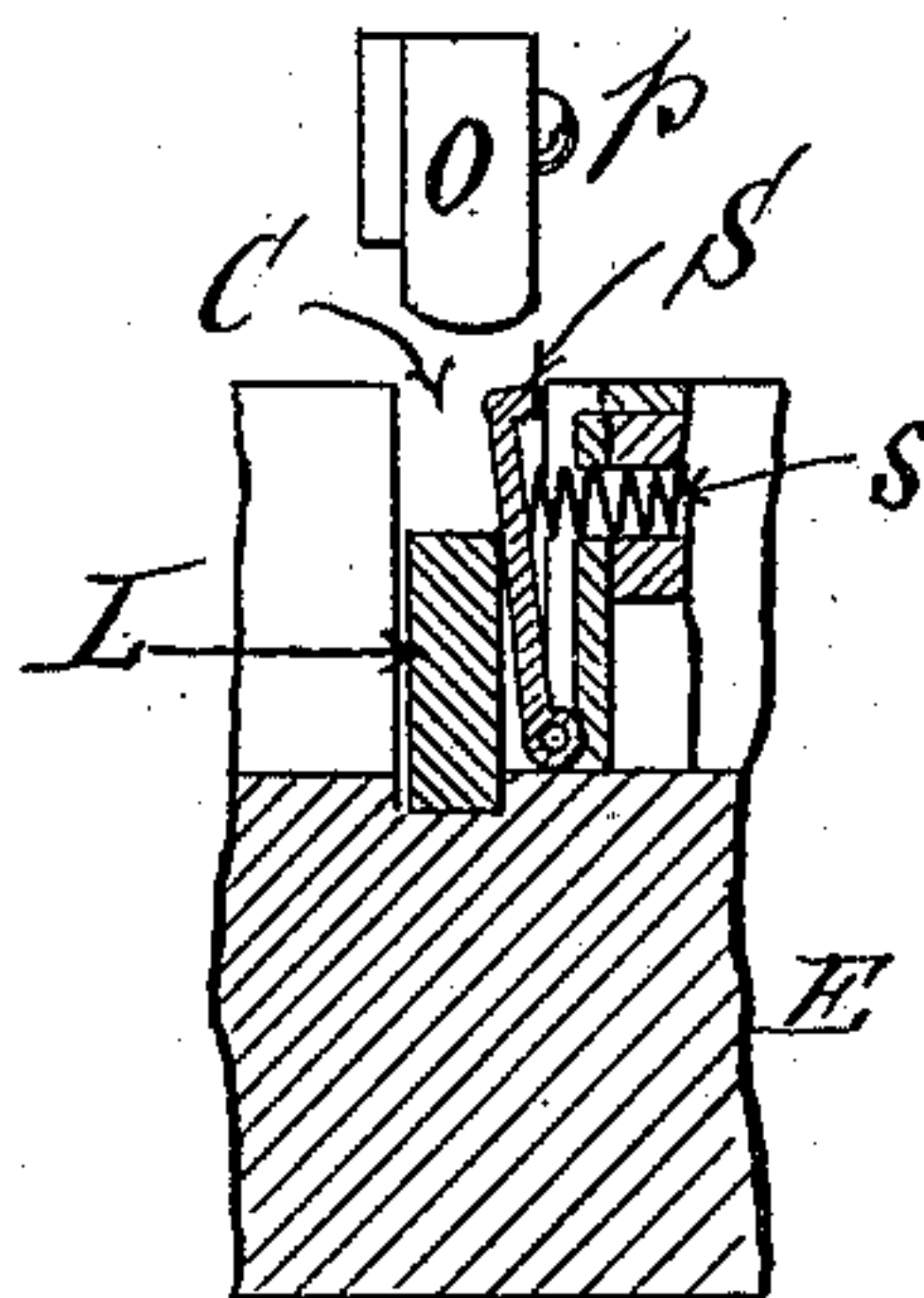


Fig. 6.

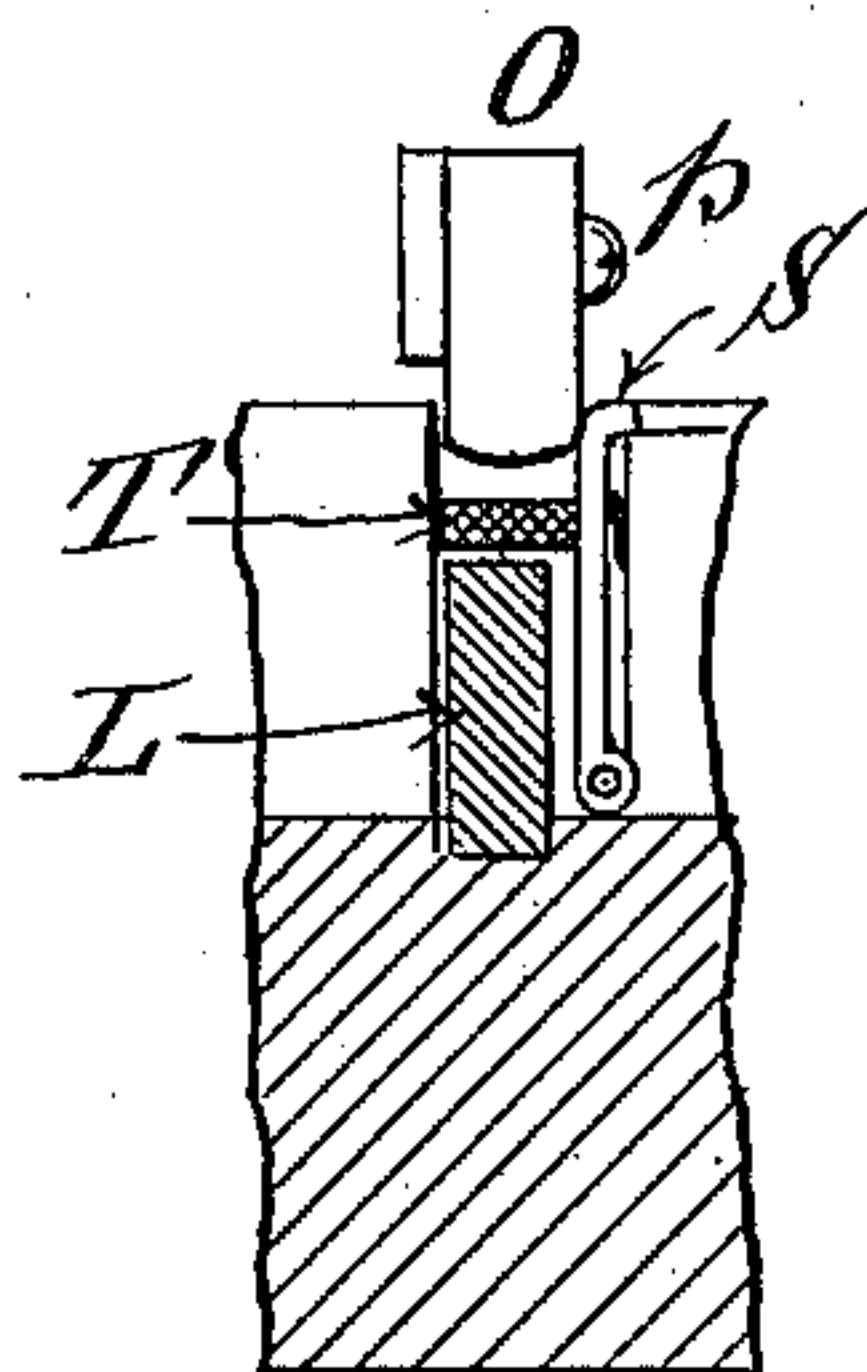
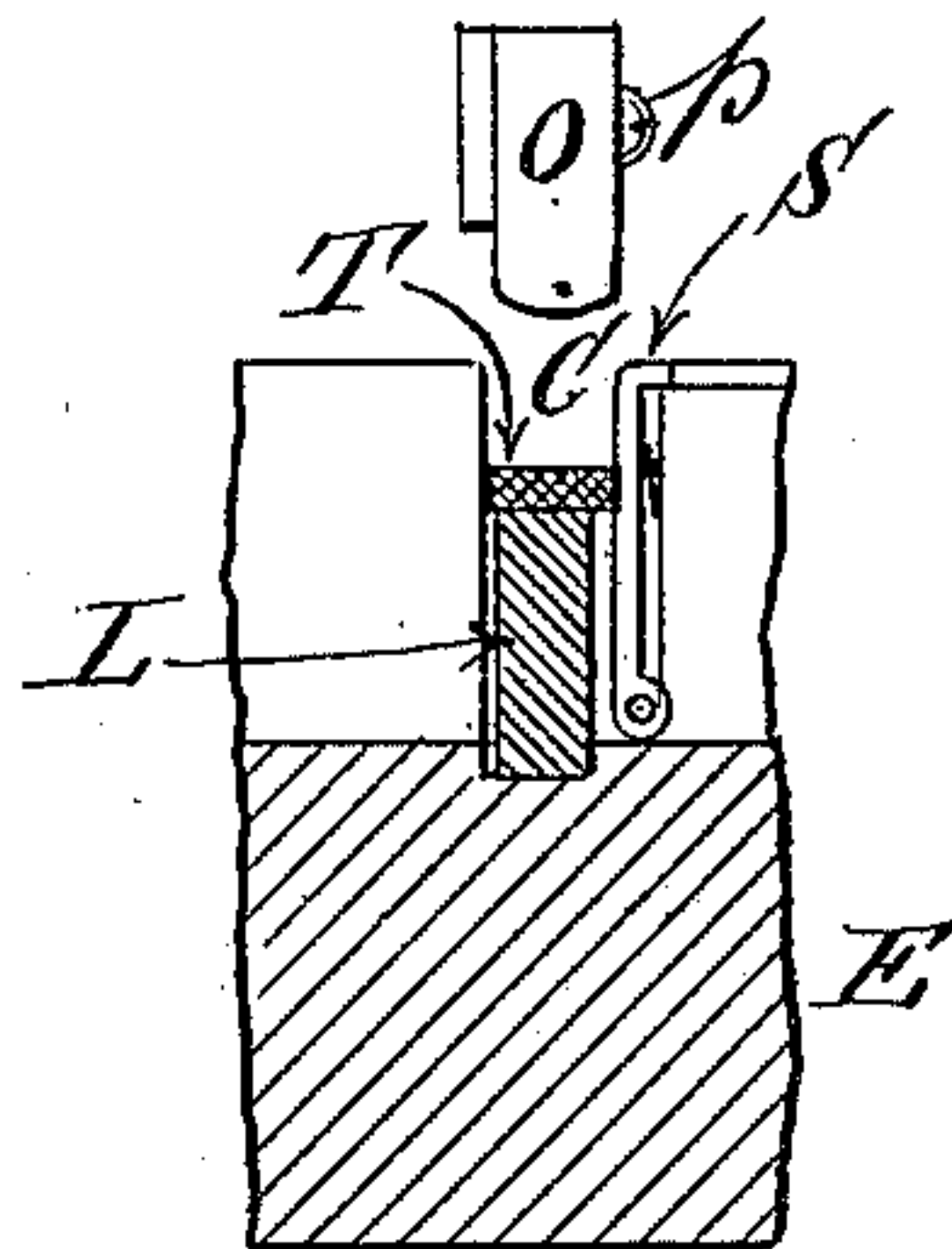


Fig. 7.



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UNITED STATES PATENT OFFICE.

JAMES BREAKEY, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE ALDEN
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TYPE-DISTRIBUTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 668,346, dated February 19, 1901.

Application filed July 7, 1900. Serial No. 22,786. (No model.)

To all whom it may concern:

Be it known that I, JAMES BREAKEY, a citizen of the United States, residing in the borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Type-Distributing Apparatus, of which the following is a specification sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

My invention relates to the class of type-distributing apparatus known as the "Alden" and clearly shown and described in the patents to Thomas Reeve, No. 245,563, dated August 9, 1881, and to A. C. Richards, No. 212,503, dated February 18, 1879.

The object of my invention is to lessen the wear on the type by automatically opening the shutter-latches prior to the insertion of a type, thereby relieving them of frictional contact to which they have heretofore been subjected while pressing back the shutter-latch.

In the accompanying drawings, Figure 1 is a sectional elevation of the latch and adjoining parts of the apparatus, the parts being at rest in their normal position. Fig. 2 is a similar view showing the lifting-ring partially raised and its action upon the latch-opener; Fig. 3, a detail view showing the position of the latch-opener when the lifting-ring is fully raised. Fig. 4 is a view similar to Fig. 2, showing a type upon the lifter and the shutter-opener about to recede from its shutter-latch. Figs. 5, 6, and 7 are sectional views upon an enlarged scale, showing the operation of the shutter-latch opener, latch, &c.

A is the frame of the machine.

R is the lifting-ring.

L is one of the lifters for raising the types from the shutter-channel C, as fully set forth in said patents hereinbefore referred to.

a' is a bracket or arm rigidly attached to the frame A of the machine, upon which bracket *a'* is mounted a bell-crank lever B, the lower end of which is connected by a spring *q* to a stationary part of the machine. The opposite end of this bell-crank lever B is formed to act as a shutter-opener O for thrusting back the shutter-latch S, as illustrated in Figs. 5, 6, and 7. This may be done by the end of the lever B, itself to act as an

opener, obviously; but I prefer to form the opener of a separate piece, as shown in the drawings, and to make said opener O adjustable upon the end of the rock-lever B by means of a set-screw *p*, passing through the slot *o* in the opener O and engaging with a screw-thread in the lever B. The lower arm of the lever B is formed with a cam-surface *b* for engagement with a roller *r* upon the lifting-ring R, the functions of which latter are fully set forth in the patents hereinbefore referred to.

D is the reciprocating pusher, by which the types are transferred from the galley-channel to the lifter L, upon which they are carried until the individual channel for which the latch is set is reached by the rotation of the latch-ring E, as heretofore, it being understood that the shutter-latch opener, herein shown and described, is used only at the point at which the types are fed onto the lifting-latches.

The operation is as follows: Upon the upward movement of the lifting-ring R the roller *r* presses against the cam-surface *b* of the lever B, thereby rocking the opener O downward, so that its rounded or beveled edge forces the shutter-latch S backward against the resistance of the latch-spring *s* (shown in Fig. 5) and holds the shutter back while the type T is fed into the shutter-channel C and upon the lifting-latch L by the pusher D. During the return or downward movement of the lifting-ring R the roller *r* will again pass over the cam-surface *b*, rocking the lever into its normal position by reason of the retractile spring *q*. It will thus be seen that the types are transferred to the lifters L with little or no frictional contact with the shutter S upon the opposed side of the channel C and are thus relieved of the wear and strain to which they have heretofore been subjected in being themselves used to force open the shutter S.

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

1. In type-distributing apparatus the combination with the lifting-ring, of a shutter-latch opener actuated thereby, substantially in the manner and for the purpose set forth.

2. In type-distributing apparatus the combination of the lifting-ring R, the latch L, the lateral shutter S, and the shutter-opener O,

actuated by the lifting-ring R, substantially in the manner and for the purpose set forth.

3. In type-distributing apparatus the combination of the lifting-ring R, the lifting-latch L, the lateral spring-shutter S, the bell-crank lever B, pivotally connected to a stationary part of the apparatus and rocked by the lifting-ring R, and the shutter-opener O, mounted adjustably upon said bell-crank lever B, substantially in the manner and for the purpose described.

4. In type-distributing apparatus the com-

bination of the lifting-latch L, spring-shutter S, the shutter-opener O, mounted upon the rock-lever B, said rock-lever B, formed with the cam-surface *b*, and the lifting-ring R, provided with the roller *r*, for engagement with said cam-surface *b*, substantially in the manner and for the purpose set forth.

JAMES BREAKEY.

Witnesses:

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