No. 666,280. Patented Jan. 22, 1901.

A. A. LOW & J. BREAKEY.

TYPE DISTRIBUTING APPARATUS.

(Application filed July 7, 1900.)

(No Model.) 3 Sheets—Sheet 1.

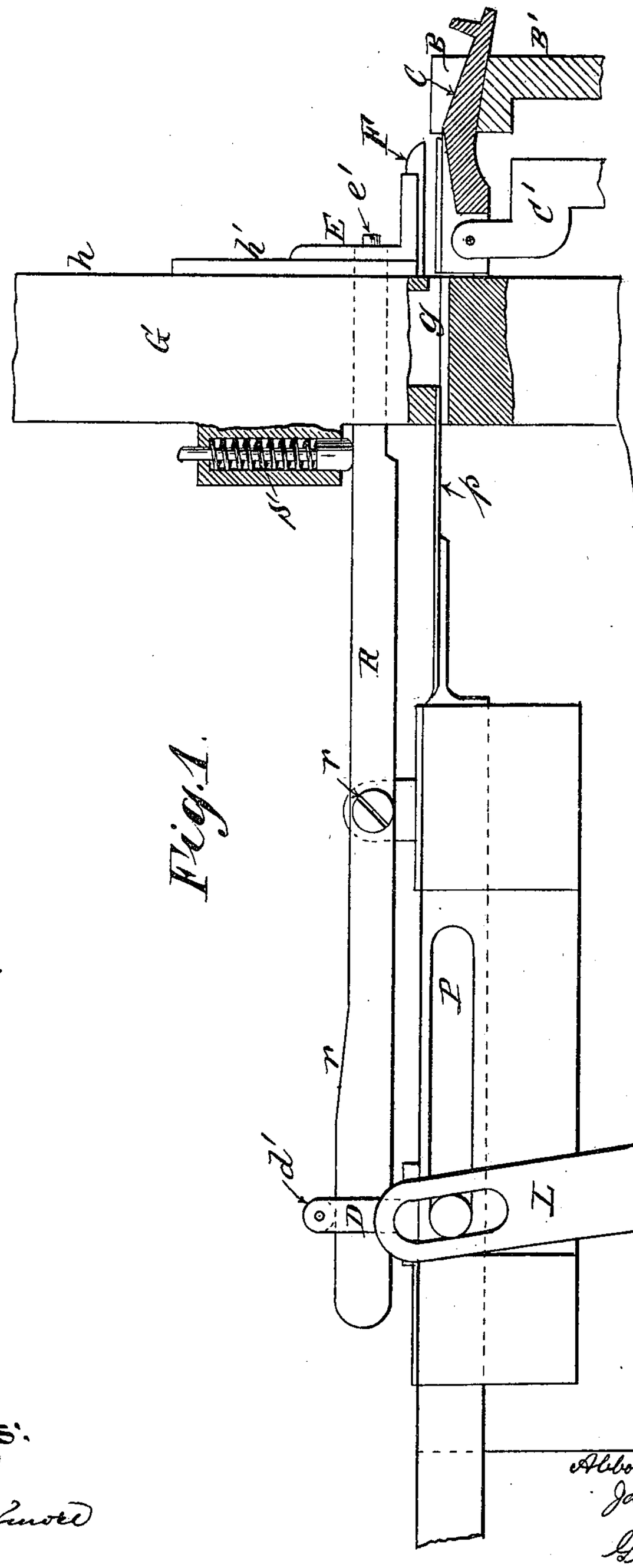

Fig. 1.

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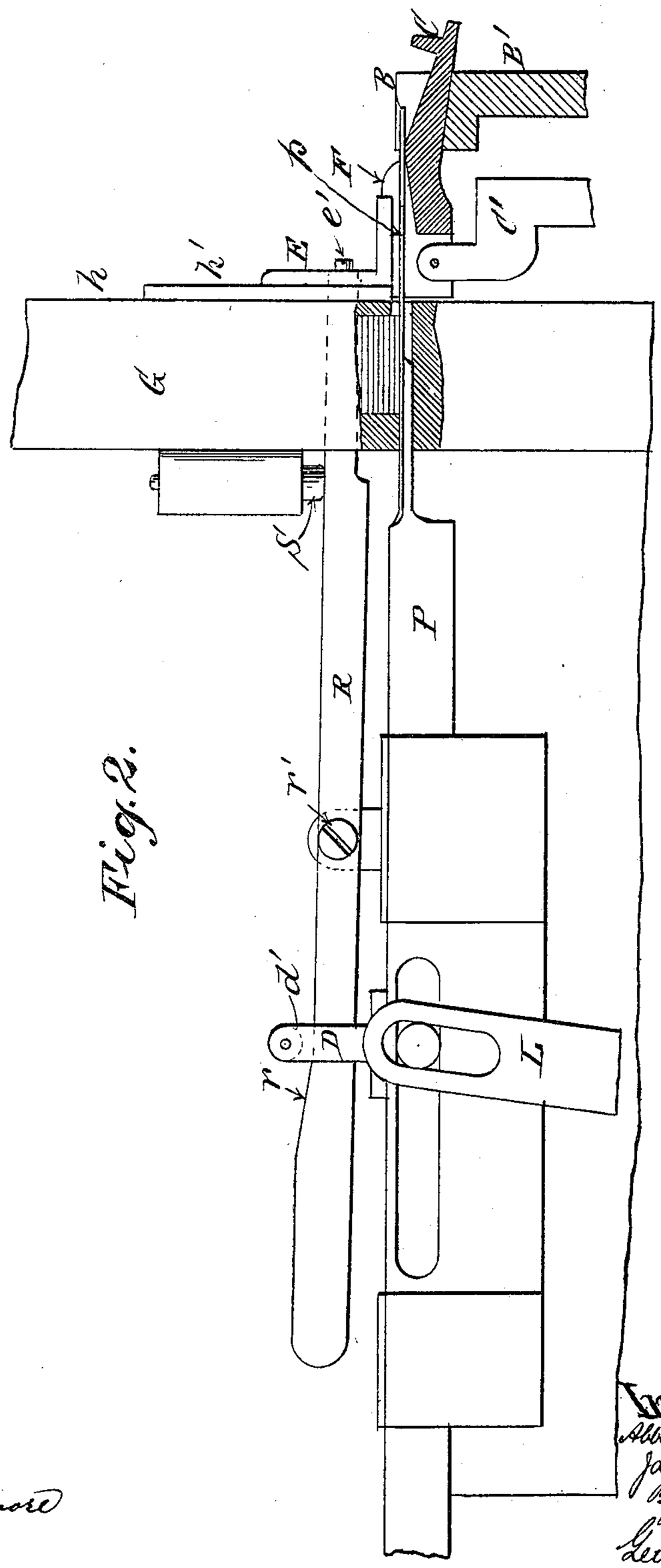

Fig. 2.

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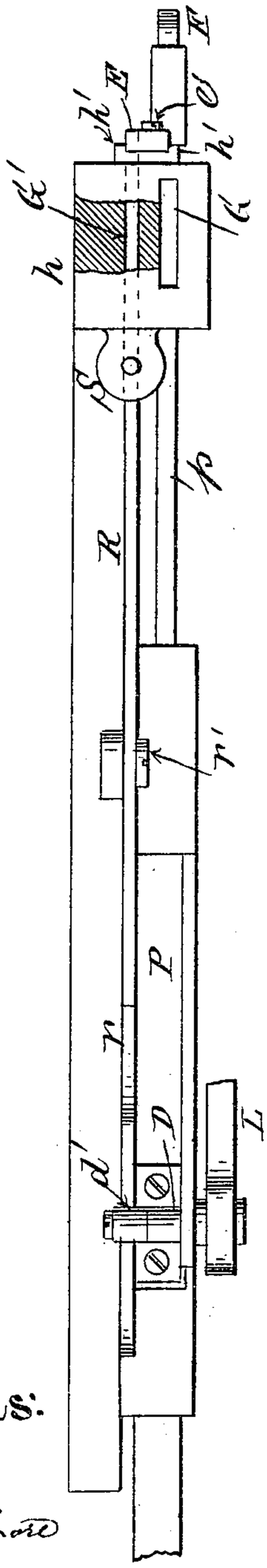

Fig. 3.

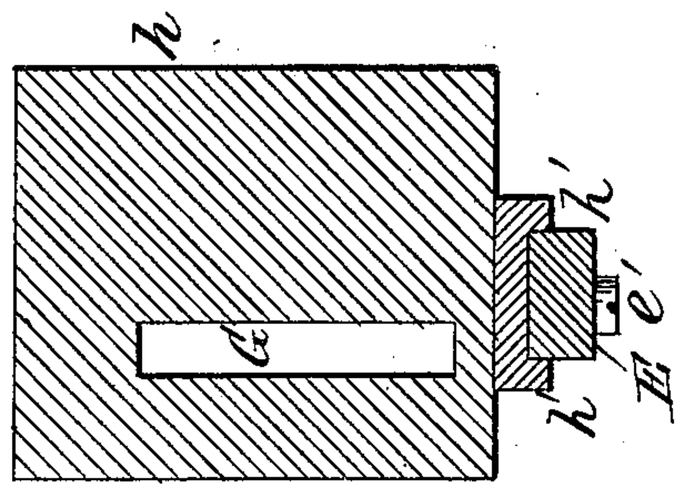

Fig. 5.

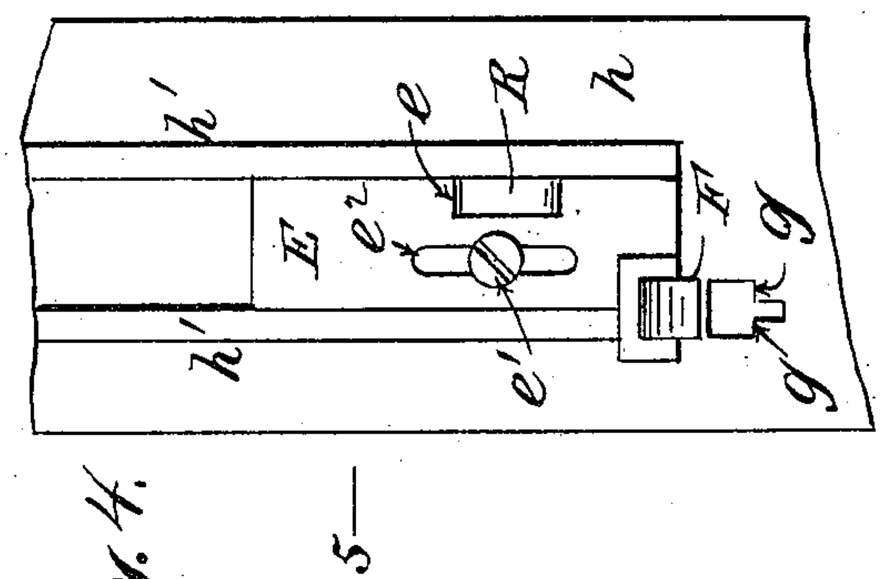

Fig. 4.

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UNITED STATES PATENT OFFICE.

ABBOT AUGUSTUS LOW AND JAMES BREAKEY, OF NEW YORK, N. Y., ASSIGNORS TO THE ALDEN TYPE MACHINE COMPANY, OF SAME PLACE.

TYPE-DISTRIBUTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 666,280, dated January 22, 1901.

Application filed July 7, 1900. Serial No. 22,774. (No model.)

To all whom it may concern:

Be it known that we, ABBOT AUGUSTUS LOW and JAMES BREAKEY, citizens of the United States, and residents of the city of New York, borough of Brooklyn, 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.

Our improvements relate to the class of type-distributing apparatus known as the "Alden," heretofore shown and described in the patents to A. C. Richards, No. 212,563, dated February 18, 1879, and Thomas Reeve, No. 245,563, dated August 9, 1881.

The object of our invention is to afford means for holding the type positively upon the forward portions of lifters while the types are being pushed into position thereon suitable for transfer to the individual channel.

The invention consists, essentially, in a type-presser foot which is actuated indirectly by the type-forwarding mechanism, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a sectional elevation of the parts essential in illustrating our invention, the pusher being retracted and the parts at rest. Fig. 2 is a similar view showing the pusher near the completion of its forward stroke. Fig. 3 is a top view of the parts shown in Fig. 1, the latch, lifter, and channel being omitted. Fig. 4 is an enlarged view showing the presser-foot and slide; Fig. 5, a transverse section upon line 5 5, Fig. 4.

G is the galley-channel, into which the lines of type to be distributed are introduced, the lower end of the column of types resting upon the shoulders *g g*, which constitute the floor of the channel.

P is the type-forwarder, carrying the type-pusher blade *p*, the forwarder being reciprocated by suitable mechanism through the medium of the slotted lever L.

C is the lifting-latch, pivoted to a signal-lever C′ and resting in the latch-channel B in the rotatable ring B′.

R is a rock-lever fulcrumed at *r′* to a stationary part of the apparatus. The forward end of this rock-lever R passes through a vertical slot G′, formed in the standard *h*, in which the galley-channel G is also formed, and engages with a slot or recess *e* in the slide E, which rests between the guides *h′ h′* on the face of the standard *h*, being held thereto by a screw *e′*, as will be seen by reference to Fig. 4, a slot e^2 being formed in the slide E to admit of the vertical movement of the slide.

The rear arm of the rock-lever R engages with a projection D, formed upon or secured to the upper side of the type-forwarder P, a cam-surface *r* being formed upon the upper side of the rock-lever R, so that as the type-forwarder P is reciprocated the lever R will be rocked upon its fulcrum *r′*. An antifriction-roller *d′* is preferably provided upon the projection D for engagement with the upper surface of the lever. A spring-buffer S is arranged upon the rear side of the standard *h* to bear against the forward arm of the lever R, as will be seen by reference to Fig. 1.

The vertical slide E carries a type foot-lever F, extending out horizontally above the portion of the lifter C between the type-floor *g* and the shutter-channel B. This type-presser foot F is preferably made of non-metallic material, such as boxwood, vulcanite fiber, or the like.

The operation is as follows: The parts being at rest, as in Fig. 1, with the type-forwarder retracted, the roller *d′*, resting upon the higher portion of the cam-surface, holds the rear arm of the lever R depressed against the resistance of the spring-buffer S, thereby raising the slide E and presser-foot F. As the type-forwarder moves forward under the stroke of the lever L the roller *d′* leaves the elevated portion of the cam, allowing the spring-buffer S to depress the forward end of the rock-lever R, lowering the slide E and presser-foot F over the advancing type, so as to retain the latter upon the lifter C until it is well advanced between the walls of the shutter-channel B. We thus preserve the alinement of the type and prevent the heels of the type from riding over the forward end of the pusher-blade, as was liable to occur before our invention and adoption of the presser-foot herein described.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In type-distributing apparatus the com-

bination of the thrust-lever L, for actuating the reciprocating pusher P, said pusher P, carrying the pusher-blade *p*, and depressing-roller *d'*, the rock-lever R, the presser-foot F, mounted upon said rock-lever and the lifting-latch C, the whole arranged and operating substantially in the manner and for the purpose set forth.

2. In type-distributing apparatus the combination of the actuating-lever L, the pusher P, carrying the pusher-blade *p*, and the depressing-roller *d'*, the rocking lever R, carrying the presser-foot F, the spring S, the galley-channel G, and the lifting-latch C, the whole arranged and operating substantially in the manner and for the purpose described.

3. In type-distributing apparatus the combination with the type-forwarding mechanism and with the galley-channel, of a depressible type-holder formed with a non-metallic type-bearing surface together with a latch-lifter formed with a type-receiving surface opposed to said non-metallic type-bearing surface for the purpose and substantially in the manner described.

4. In type-distributing apparatus the combination of the actuating-lever L, the type-pusher P, carrying the depressing-roller *d*, and the type-pusher *p*, the rock-lever R, formed with the inclined cam-surface *r*, the type-presser foot F, attached to said rock-lever, and the type-lifting latch C, the whole arranged and operating substantially in the manner and for the purpose described.

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Witnesses:
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