J. R. ROGERS.

LINOTYPE MACHINE.

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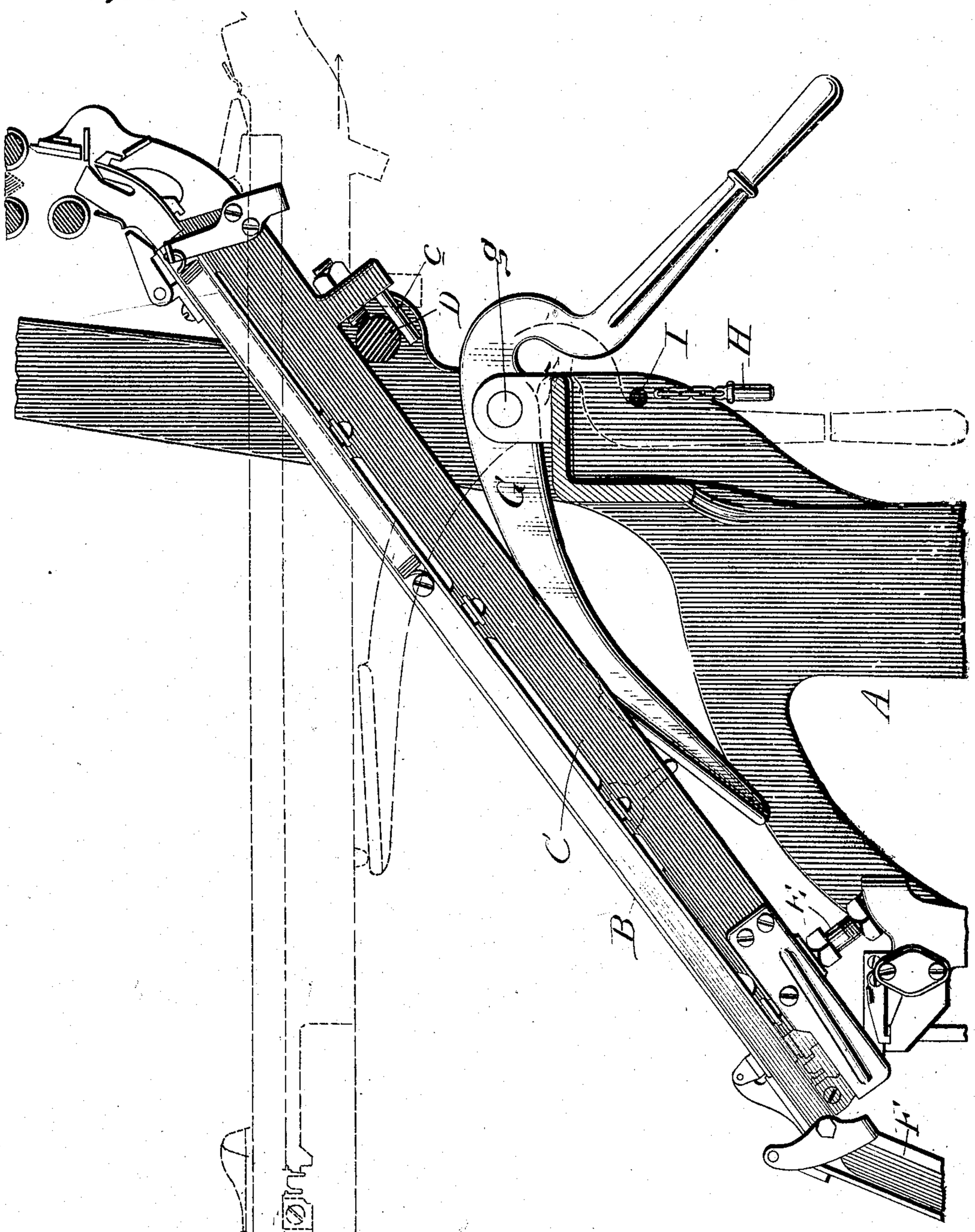
919,957. Patented Apr. 27, 1909.



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UNITED STATES PATENT OFFICE.

JOHN R. ROGERS, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

LINOTYPE-MACHINE.

No. 919,957. Specification of Letters Patent. Patented April 27, 1909.

Application filed February 15, 1908. Serial No. 416,063.

To all whom it may concern:

Be it known that I, JOHN R. ROGERS, of the borough of Brooklyn, county of Kings, and State of New York, have invented a new and useful Improvement in Linotype-Machines, of which the following is a specification.

This invention has reference more particularly to linotype machines of the general organization represented in U. S. Letters Patent No. 436,532, and has in view the more speedy and convenient removal and application of the magazine in which the matrices are stored, so that one font or set of matrices may be replaced by another.

The magazine is a flat channeled structure secured to a heavy base-frame located in an inclined position in the top of the main-frame, the upper end being about six feet from the floor. This base-frame is removably seated at its lower end on supports in the frame, and near its upper end on a cross-bar or rod. In order to effect its removal, its lower end must be disconnected and tipped upward, after which the whole structure must be drawn bodily backward and downward over the supporting-rod. Owing to the weight of the magazine,—which is about 150 pounds—and the location of the support approximately six feet from the floor, this is a laborious operation, requiring the efforts of two persons. In order to overcome this difficulty, I mount in the frame a lever or equivalent movable support, by which the magazine may be rocked upward at its lower end, around the supporting-rod, and maintained in a horizontal, or substantially horizontal position, so that a single attendant standing behind the machine, may conveniently and safely effect its removal. By reverse operation, he may in like manner apply a substitute magazine.

The drawing represents a vertical section from front to rear through the upper part of a linotype machine having my invention incorporated therein.

With the exception of the parts hereinafter described, the machine may be in all respects of ordinary construction.

Referring to the drawing, A represents a rigid main-frame; B the inclined channeled magazine; and C the flat skeleton base-frame upon which the magazine is secured, and by which it is prevented from twisting or curling out of shape.

D represents a horizontal rod seated in the main-frame, and supporting the upper end of the frame C, which has a hook-like portion *c* engaging around the rod.

E represents one of the supports upon which the lower end of base-frame C rests.

F is the vertically channeled face-plate into which the matrices are delivered from the lower end of the magazine.

The foregoing parts are all constructed in substantially the same manner as in the patent above referred to, the arrangement being such that the magazine may be tipped upward at the forward end, and then carried rearward and downward over the rod D out of the main-frame.

Heretofore it has been necessary for one attendant to raise and support the forward end of the magazine while another, standing at the rear, seized it at the rear end and aided in moving it backward, the first operator finally passing to the rear to assist in lifting the magazine from the machine and replacing it by another.

My invention contemplates means for quickly raising the forward end of the magazine until it assumes a substantially horizontal position, and then maintaining it in such position while it is being withdrawn from the machine.

Referring now to my improvement in the form represented in the drawings, G represents a hand lever. It is mounted near its middle at *g* on a horizontal pivot on the main-frame, its forward end being extended forward beneath the base-frame of the magazine in such form as to exert a lifting effect thereunder, while its rear end is fashioned in such form that it may be readily operated by the attendant standing behind the machine.

When the magazine is to be removed, it is only necessary for the attendant to depress the rear end of the lever, whereupon the forward end will tip the base-frame and the magazine thereon upward to a horizontal position, as indicated in dotted lines. While the parts are in this position, the lever may be locked by the introduction of a pin H through a hole I in the main-frame behind the lever, as indicated in dotted lines.

The magazine being now supported in its elevated position, the operator, retaining his position behind the machine, has only to seize its end and draw it rearward and rock

it downward over the rod D. During the backward motion and until it over-balances at the rear end, the magazine receives support both from the rod D and from the forward end of the lifting lever. This admits of its being easily and safely handled.

In applying a magazine, its forward end is rested upon the rod D, after which it is pushed forward thereover and supported at its front end on the lever, after which the latter is unlocked and the lower end of the magazine permitted to fall to its operative position.

The essence of the invention lies in combining with a magazine supported at its upper rear end as described, a lifting and sustaining means under the control of the attendant, and while the lever in the form shown answers an excellent purpose and is applicable to existing machines, it is to be understood that it may be varied in form and replaced by any other lifting and sustaining device having a similar mode of action, that is to say, any device which will serve to lift and to temporarily support the lower or forward end of the magazine.

While it is preferred to leave the lever in the machine as a permanent part, it will of course be understood that it may be removed at will and used in other machines. This removal may be effected either by withdrawing the pin *g*, or by leaving the seat for the pin open in the under side, so that the lever may be lifted from its place.

While it is preferred to have the magazine permanently attached to and removable with the base-frame C, it will of course be understood that the base-frame may remain permanently in the machine, and that when the base-frame is in the elevated position, the magazine may be withdrawn endwise therefrom at the rear of the machine. In such case, the magazine will be seated loosely on top of the base-frame.

Having thus described my invention, I claim and desire to secure by Letters Patent,—

1. In a linotype machine having an inclined magazine supported at its upper rear end, and removable rearward over its support, means adapted to lift the forward end of the magazine and sustain the same in an elevated position during its removal.

2. In a linotype machine having an inclined magazine sustained on a rod D and removable at the rear over said rod, means extended to the rear of the machine and adapted to lift the forward end of the magazine, said means including a locking device by which the magazine is maintained in the elevated position.

3. A linotype machine having an inclined magazine removable at the rear over an elevated support, in combination with a lever G adapted to lift and support the forward end of the magazine, and means for locking said lever, substantially as described.

4. A linotype machine having an inclined magazine sustained at its upper rear end removable at the rear, in combination with means whereby the magazine may be lifted at the front to a horizontal position, and means for locking the lifting means in the elevated position during the removal or insertion of the magazine.

In testimony whereof I hereunto set my hand this first day of February, 1908, in the presence of two attesting witnesses.

JOHN R. ROGERS.

Witnesses:

ROBERT G. CLARK,

JESSIE I. SMITH.