



No. 767,169.

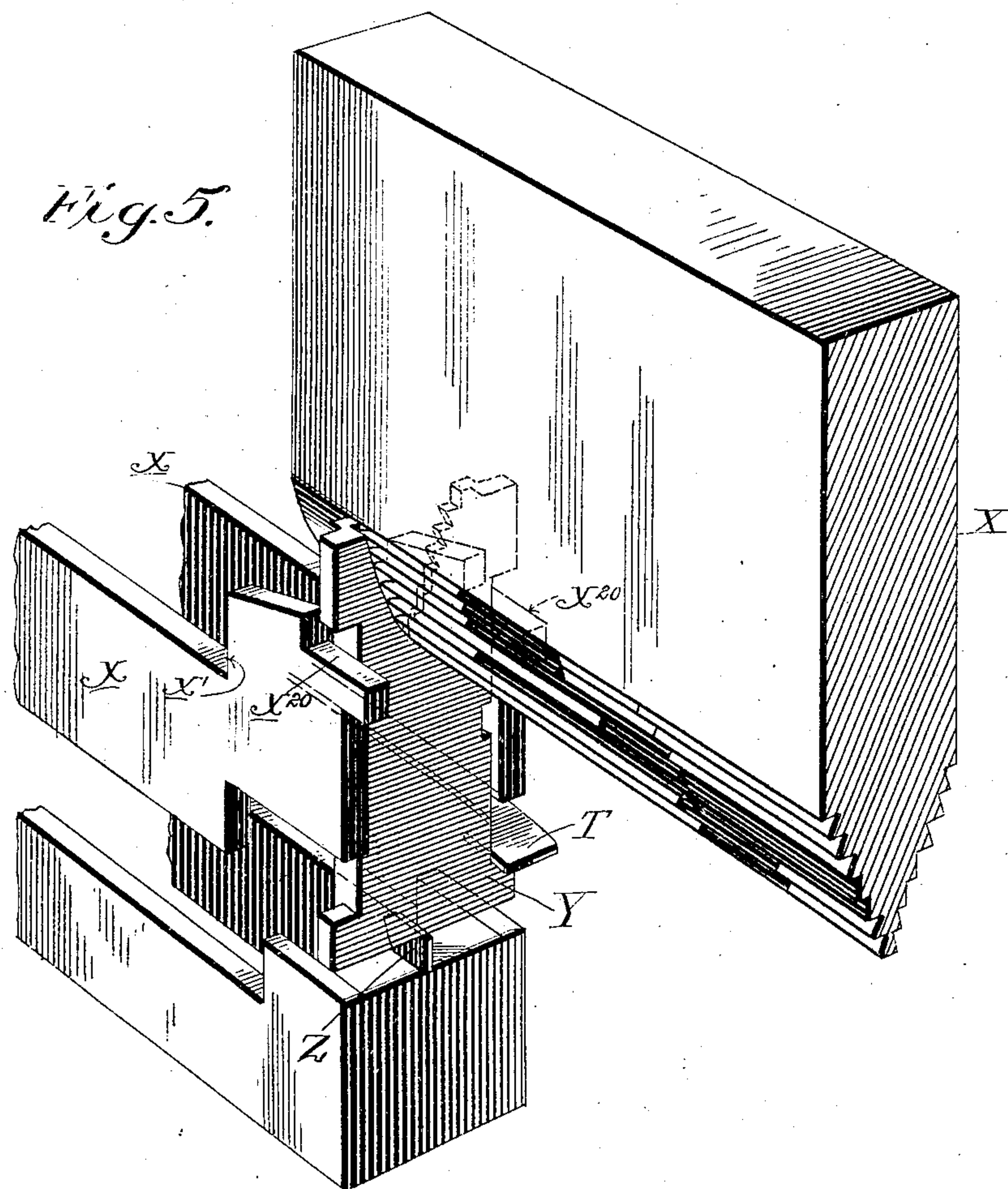
PATENTED AUG. 9, 1904.

J. R. ROGERS.  
LINOTYPE MACHINE.

APPLICATION FILED JUNE 10, 1904.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses;  
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# UNITED STATES PATENT OFFICE.

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## LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 767,169, dated August 9, 1904.

Application filed June 10, 1904. Serial No. 212,026. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN R. ROGERS, 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.

The present invention has in view the disintegration of composed lines of matrices containing matrices of different fonts, so that those of each font may be separated from the others for presentation to the corresponding distributor, by which they are returned to their magazine or holder.

The invention is intended more particularly for use in machines such as represented in Letters Patent of the United States No. 640,033, issued to me on the 26th day of December, 1899, and is shown in the accompanying drawings in the form in which it has been commercially embodied in said machines.

In the patent above referred to the matrices employed are of the ordinary Mergenthaler pattern, each matrix having in the upper end a V-shaped notch containing distributing-teeth. Two magazines are employed, one above the other, each with its individual distributor over the upper end. The lines of matrices, composed in part of matrices from one magazine and part of matrices from the other, are presented in the ordinary relation to the upper distributor; but before entering the distributor proper the matrices belonging to the lower magazine are permitted by reason of a peculiarity in their form to fall one at a time away from the line and through a chute or guide to the distributor of the lower magazine.

The present invention relates to these devices for separating the matrices according to fonts; and it consists, essentially, of a fixed bridge or support so formed and located as to underlie and sustain those advancing matrices which belong in the upper magazine until they enter the upper distributor and, on the other hand, permit the advancing matrices, which belong in the lower magazine and which are notched in the lower end, to straddle the bridge and fall to a lower level before reaching the upper distributor in order that

they may escape its action and fall to the lower distributor.

As the distributor proper, the feed devices, and other parts may be of the construction shown in United States Patent No. 640,033, I have limited the accompanying drawings to those parts with which the present improvement is immediately associated.

Referring to the drawings, Figure 1 is a side elevation showing the distributor-bar, the adjacent parts for presenting the matrices thereto, and my devices for effecting the separation of matrices belonging to the respective fonts. Figs. 2, 3, and 4 are cross-sections on the lines 2 2, 3 3, and 4 4, respectively, Fig. 1, looking in the direction indicated by the arrows. Fig. 5 is a perspective view of parts shown in the preceding figures.

Similar letters of reference designate corresponding parts in all the figures.

Referring to the drawings, X represents the horizontal fixed distributor-bar commonly used in the commercial linotype-machine, its lower edge being of V-section, with longitudinal teeth so grouped or arranged as to engage corresponding teeth in the upper ends of the matrices Y, so that as the matrices are carried along the bar one after another they will be sustained until they arrive over their appropriate channels in the magazine or receiver. The matrices Y are of the form commonly employed in the Mergenthaler machine, except that the matrices Y', belonging in the lower magazine, are each formed with a central notch *y* in the lower end, all the matrices of the lower magazine having notches of the same size and form, while the matrices of the upper magazine are without these notches.

*x x* represent the side rails commonly employed in the distributor-box for the purpose of supporting the composed line of matrices, which is urged endwise between the rails, so as to keep the foremost matrix against the shoulders *x'*. By the usual lifting devices the matrices are raised one at a time from the end of the line clear of the shoulders *x'* and advanced toward the distributor-bar X. During this advance the shoulders at the upper



ends of the matrices ride upon the elevated inclined ends of the rails  $x$ , whereby the matrices are gradually raised into position for their teeth to engage the teeth of the distributor-bar in the ordinary manner.

The foregoing parts are constructed and arranged to operate in the ordinary manner, except that the inner or delivery ends of the rails  $x$  are recessed or cut away at the top at the inner or delivery end, as shown at  $x^{20}$ , so that as each matrix arrives at this point it can fall away from the distributor-bar and avoid engagement therewith unless otherwise supported.

As it is necessary to support the matrices for the upper magazine, so that they will engage the upper distributor-bar, I provide below the path of the matrices a fixed bridge or bar Z. The matrices Y for the upper magazine having solid lower ends or ends without notches will ride upon and be supported by this bridge, as shown in Fig. 3, so that their teeth will be compelled to engage the upper distributor, by which they will be carried forward and delivered to the upper magazine. The matrices Y' being notched in the lower end, as shown in Fig. 2, will fail to receive support from the bridge and will drop down astride of the same until their upper shoulders are sustained on the depressed surfaces  $x^{20}$  of the supporting-rails. Thus supported, the matrices of the lower magazine are so low that their teeth are below those of the upper distributor-bar, and they are consequently permitted to move forward without engaging the upper distributor until they are carried over beyond the supporting-surfaces  $x^{20}$ , whereupon they fall by gravity to the devices by which they are conducted to the distributor of the lower magazine or otherwise disposed of.

The essence of the invention consists in an underlying bridge or support adapted to sustain one font or series of matrices, while permitting those of another font or series to fall and advance at a lower level. The details may be modified at will provided there is no essential change in the mode of operation.

I also propose to provide a spring or pressure device T in such position that the ears of the advancing matrices will override it, thereby causing the spring to exert a down-

ward pressure sufficient to insure the descent of the matrices astride the bridge Z.

Having described my invention, what I claim is—

1. In a linotype-machine, as a means of separating matrices of different fonts, the combination of the distributor-bar, the matrix-guiding rails X, and a bridge Z, underlying the matrix-path, whereby matrices of one font are maintained at the upper level to engage the distributor-bar, and matrices of the other font permitted to fall before engaging the distributor-bar.

2. In a linotype-machine, the combination of a distributor-bar X, and a stationary bridge or support Z, lying directly beneath the toothed end of the distributor-bar, whereby advancing matrices of one font are compelled to engage the bar, while those of another font are permitted to escape the bar.

3. In a linotype-machine, the combination of a distributor-bar, means for lifting the toothed matrices to the proper height for engagement with the bar, means for releasing matrices of one font prior to engagement with the bar, and means for urging the released matrices downward.

4. In a linotype-machine, the combination of a distributor-bar, matrices notched in the lower end, matrices without notches in the lower end, and a bridge or support directly underlying the distributor-bar, whereby the matrices of one form are maintained in position to engage the bar, while those of the other form are permitted to fall before engagement with the bar.

5. In a linotype-machine, the toothed distributor-bar, two series of matrices with distributing-teeth at the upper end, those of one series differing in form at the lower end from those of the other series, means for guiding the composed lines of matrices toward the distributor-bar, and means acting beneath the matrices to sustain those of one series only for engagement with the bar.

In testimony whereof I hereunto set my hand this 6th day of June, 1904, in the presence of two attesting witnesses.

JOHN R. ROGERS.

Witnesses:

JOHN PAULSEN,  
D. S. KENNEDY.