

No. 720,795.

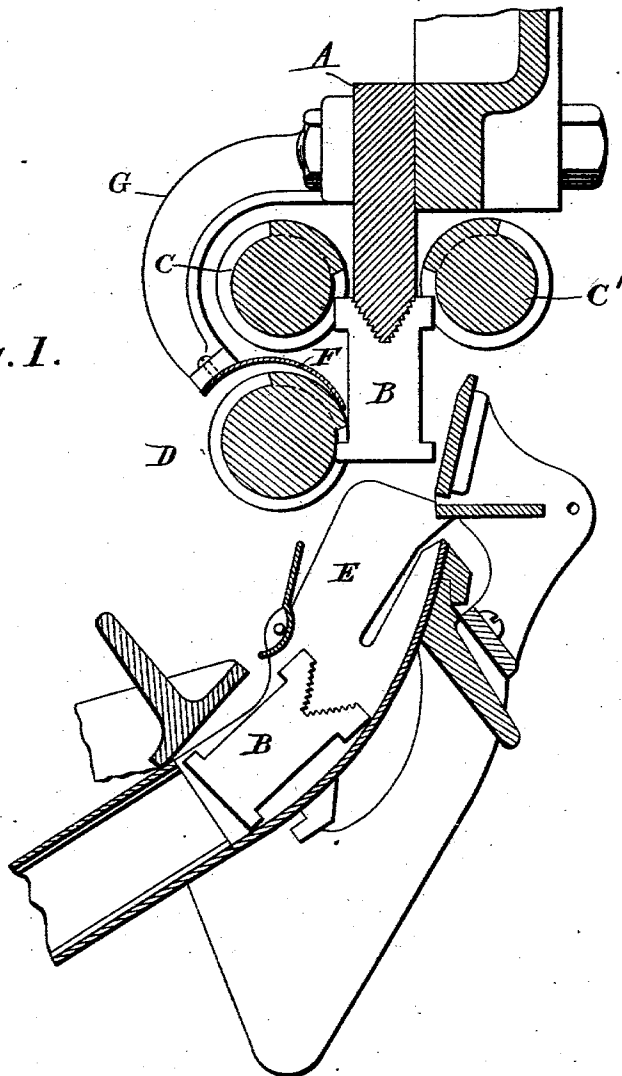
PATENTED FEB. 17, 1903.

F. X. FLECK.
LINOTYPE MACHINE.
APPLICATION FILED OCT. 21, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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H. R. Kennedy

Inventor
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2 SHEETS—SHEET 2.

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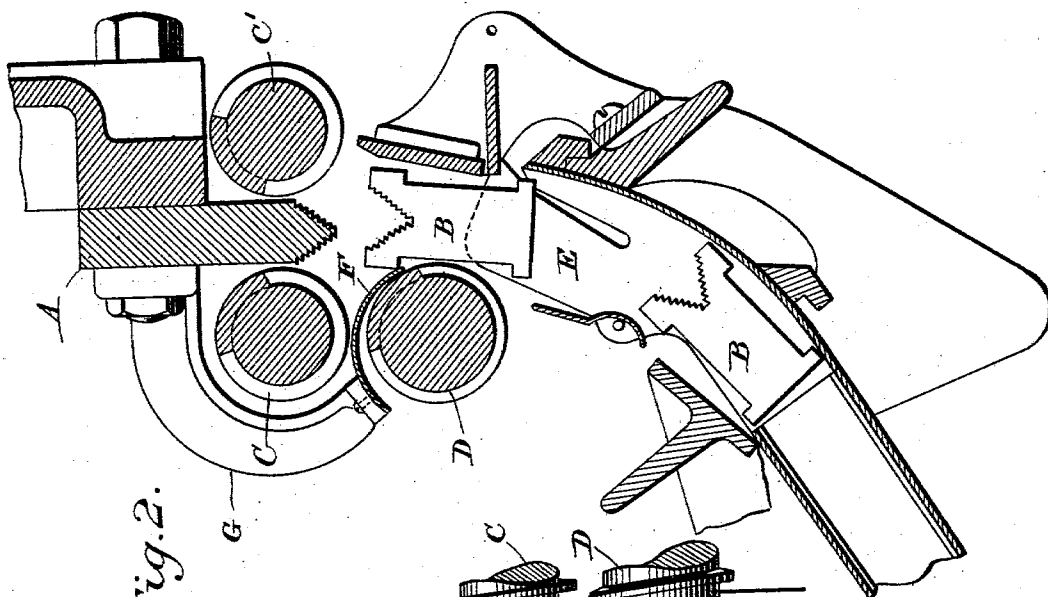


Fig. 2.

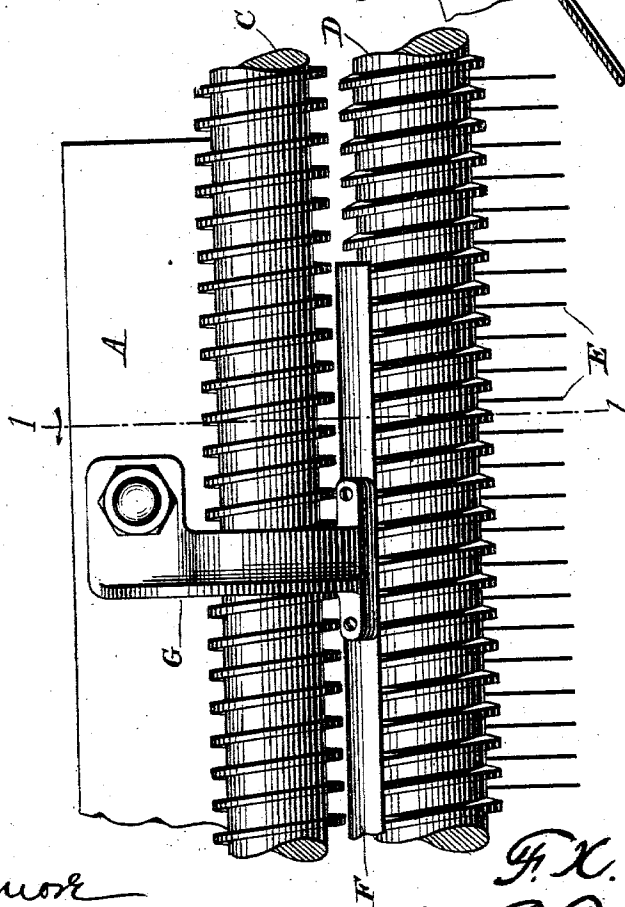


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

FRANK X. FLECK, OF BROOKLYN, NEW YORK, ASSIGNOR TO MERGENTHALER LINOTYPE COMPANY, A CORPORATION OF NEW YORK.

LINOTYPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 720,795, dated February 17, 1903.

Application filed October 21, 1902. Serial No. 128,153. (No model.)

To all whom it may concern:

Be it known that I, FRANK X. FLECK, 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 relates to that class of matrix-distributing mechanism employed in the commercial linotype-machine of the present day and represented in Letters Patent No. 436,531, wherein the matrices are carried by horizontal screws successively along a horizontal distributor-bar having at its lower edge variant combinations of teeth which engage corresponding teeth in the upper ends of the matrices, whereby the latter are suspended as they travel along the bar until they reach the proper points of delivery, at which points they are released and permitted to fall into the mouths of the appropriate channels in the magazine below. In this class of devices it is customary to have two screws lying on opposite sides of the distributor-bar and engaging the upper ends of the matrices and also to have a third screw which engages the lower ends of the matrices on one side to prevent them from swaying or swinging in the direction of travel. In practice it is found that when the distributors are run at very high speed the falling matrices after disengaging from the distributor-bar and from the upper feed-screws will sometimes be engaged on one edge by the lower feed-screw and deflected or diverted from their proper path and prevented from falling properly into the magazine.

The present invention is intended to overcome this difficulty; and it consists in a guard or fender overlying the lower feed-screw in such manner as to prevent the descending matrices from engaging therewith.

While the invention be may embodied in various equivalent forms, I have represented herein that form which in practice has given the best results.

Referring to the drawings, Figure 1 is a vertical cross-section through the distributor of the Mergenthaler linotype-machine with my improvement embodied therein, a matrix being shown in the position in which it travels

along the bar. Fig. 2 is a similar view showing the position of the matrix after it has been released and as it passes the lower screw. Fig. 3 is a side elevation of the parts shown in the foregoing figure.

Referring to the drawings, A represents the fixed horizontal distributor-bar, having its lower edge made of V form and provided with a series of longitudinal teeth, each differing in arrangement at different points in the length of the bar, as usual.

B represents one of the matrices, having its upper end notched to embrace the bar and provided with teeth to engage this bar, the teeth of matrices bearing different characters being differently arranged, so that each matrix suspended from the bar by its teeth will be sustained until it arrives over its proper channel in the magazine and then released by the disengagement of the teeth, as usual.

The matrices are constructed as usual, with ears extending outward from their edges at both the upper and the lower ends.

C and C' represent two horizontal feed-screws mounted along the opposite sides of the distributor-bar in position to engage the upper ears of the matrix.

D represents a third feed-screw, located below the screw C and in position to engage the lower ear at the forward side of the matrix. It will be observed that when the distributor-bar releases a matrix the latter falls by gravity past the lower screw D into the mouth of the magazine below.

E represents the mouth or entrance at the upper end of the magazine. It is divided, as usual, by transverse partitions, between which the matrices descend into the appropriate magazine-channels.

The foregoing parts are constructed and operate in the usual manner.

It will sometimes happen that the released matrix in descending past the screw D will be engaged by its threads and thrown to one side out of its proper position, so that its proper passage into the magazine is prevented. To overcome this difficulty, I provide the guard or shield F, consisting in the present instance of a thin sheet of metal curved in cross-section and fixed in position over the

lower screw D, as shown in the several figures. This guard is extended inward to such distance that although the lower ear of the suspended matrix is permitted to engage the screw below the edge of the guard, as shown in Fig. 1, the upper ear of the falling matrix will encounter the guard and be prevented from engaging the screw. This guard has also a tendency to throw or tip the matrix backward, as shown in Fig. 2, whereby its passage into the magazine is facilitated. The shield may be supported in any suitable manner; but I recommend the construction shown, in which it is riveted or otherwise secured to the lower ends of rigid arms G and secured to the distributor-bar, as shown, or to any fixed part of the machine.

The essence of the invention lies in the combination with the screw of an overlying guard to prevent the falling matrix from being engaged and moved sidewise thereby.

I am aware of the construction shown in the application of L. L. Kennedy, Serial No. 128,148, filed October 21, 1902. The present invention is designed as an improvement thereon.

What I claim as my invention is—

1. In a distributing mechanism and in combination with a feed-screw, an overlying shield or fender to prevent the released matrix from engaging therewith.

2. In a distributing mechanism, the combination of the distributor-bar, the upper

feed-screws, the lower feed-screw, and a guard or fender overlying the latter.

3. In a linotype-machine, the combination of a distributor-bar, the matrices having ears at their upper and lower ends, the upper feed-screws arranged to engage the upper ears of the suspended matrices, the lower screw arranged to engage the lower ears of the suspended matrices, a magazine in position to receive the falling matrices, and a guard overlying the lower feed-screw above the lower ears of the matrices and acting to prevent the upper ends of the falling matrices from engaging the screw.

4. In the Mergenthaler linotype-machine, the combination of a distributor from which the matrices are suspended, an upper feed-screw, a lower feed-screw, and an intermediate guard terminating above the lower ears of the matrices.

5. As a new article of manufacture, the attachment for a linotype-distributor mechanism, consisting of a shield or fender adapted to overlie the feed-screw and prevent the upper ends of the descending matrices from engaging said screw.

In testimony whereof I hereunto set my hand, this 3d day of October, 1902, in the presence of two attesting witnesses.

FRANK X. FLECK.

Witnesses:

R. M. BEDELL,
G. H. JONES.