

(No Model.)

2 Sheets—Sheet 1.

O. MERGENTHALER.

LINOTYPE AND MECHANISM FOR PRODUCING SAME.

No. 551,981.

Patented Dec. 24, 1895.

Fig. 1.

^cWanted-an intelligent boy to learn
the printers trade in this office.
^a
^b

Fig. 2.

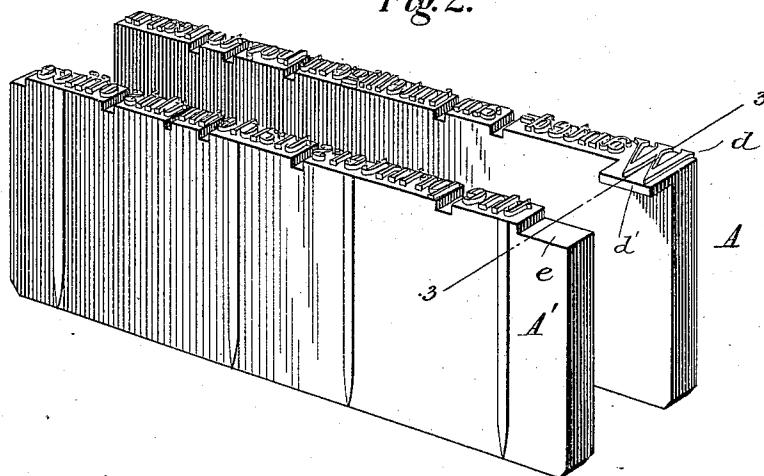
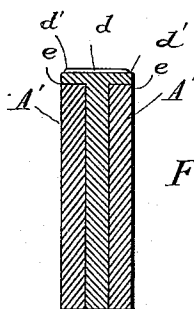
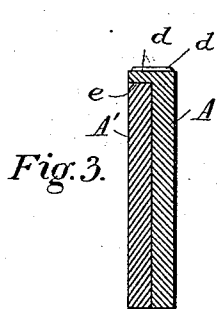


Fig. 3.
on line 3-3.



Witnesses

Raymond Barnes.
L. S. Elmore.

Inventor

Ottmar Mergenthaler
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(No Model.)

2 Sheets—Sheet 2

O. MERGENTHALER.

LINOTYPE AND MECHANISM FOR PRODUCING SAME.

No. 551,981.

Patented Dec. 24, 1895.

Fig. 4.

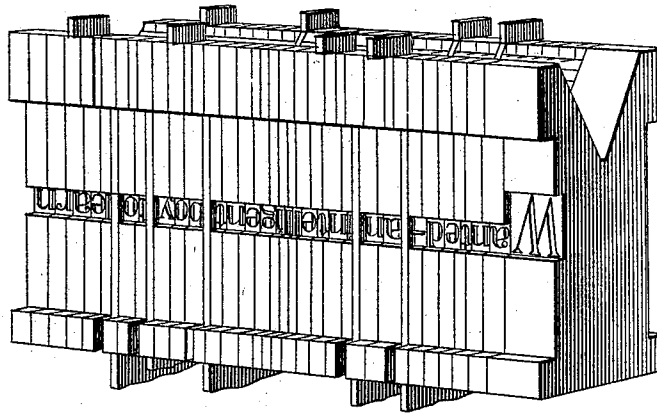


Fig. 5.

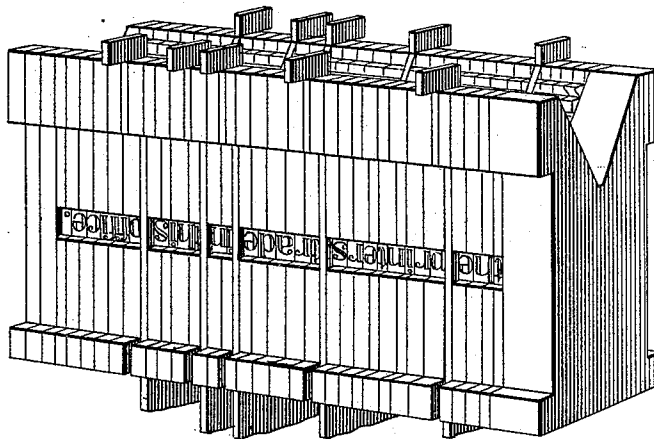


Fig. 6.

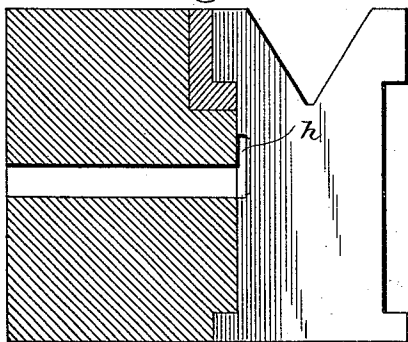


Fig. 8.

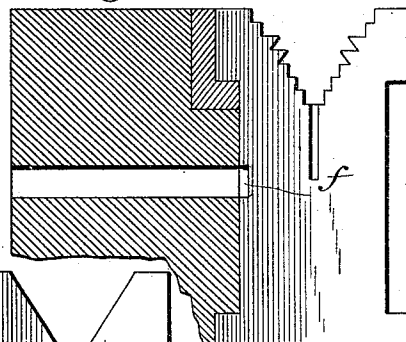
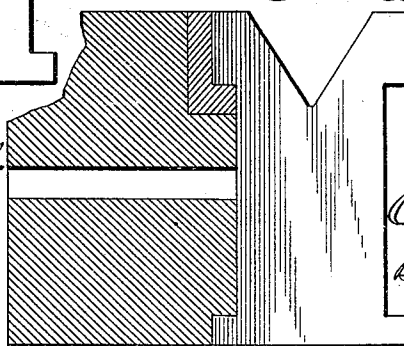


Fig. 7.



Witnesses

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J. J. Elmore.

Inventor

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UNITED STATES PATENT OFFICE.

OTTMAR MERGENTHALER, OF BALTIMORE, MARYLAND, ASSIGNOR TO THE
MERGENTHALER LINOTYPE COMPANY, OF NEW YORK, N. Y.

LINOTYPE AND MECHANISM FOR PRODUCING SAME.

SPECIFICATION forming part of Letters Patent No. 551,981, dated December 24, 1895.

Application filed July 11, 1894. Serial No. 517,204. (No model.)

To all whom it may concern:

Be it known that I, OTTMAR MERGENTHALER, of Baltimore, in the State of Maryland, have invented a new and useful Improvement in Linotypes and Mechanism for Producing the Same, of which the following is a specification.

There are now in general use in the printing art metal bars or slugs, known as "linotypes," each bearing on one edge the characters to print an entire line. Heretofore these slugs have been constructed with characters of uniform or substantially uniform size, from one end to the other, and in no case have the characters been higher or larger than the thickness of the body of the linotype.

In certain classes of printing, and particularly in the short or "want" advertisements of newspapers, it is desirable to use initial letters larger than the body faces, commonly known as "two-line" type.

The object of my invention is to provide a simple means for producing these two-line initial letters on linotypes.

To this end I provide linotypes in pairs or series, one of them provided with an initial letter which is wider than the body, so that it overhangs the body on one side, while the other is provided with a depressed blank surface adapted to underlie and give support to the overhanging portion of the initial letter. It will of course be understood that the initial letter may be of the width of two or three or more lines. In the case of a three-line initial letter it may be located on the intermediate linotype, so as to overhang those above and below it. As a simple means of producing these initials, I employ in connection with an ordinary linotype-machine—such, for instance, as that represented in Letters Patent to Mergenthaler, dated September 16, 1890, No. 436,532—special initial matrices adapted to produce the two-line characters.

In proceeding to carry out my invention I insert at the end of the first line of matrices in course of composition the matrix for the two-line character, after which I assemble or compose the ordinary matrices to complete the line. When the composed line is presented to the face of the mold the two-line character will overlap or overhang the face of

the mold, leaving a cavity into which the metal may flow to produce the enlarged character overhanging the side of the linotype. The linotype is then produced in the ordinary manner. In composing the next line I insert at the front a blank matrix or space, corresponding in width to the two-line character and adapted to fit flush against the face of the mold. This is followed by the rest of the matrices in the line as usual. The casting operation is then performed in the usual manner, producing a second linotype having at one end the depressed surface formed by the blank matrix. When the two linotypes thus formed are laid together side by side the extended character of one will overhang the face of the other.

The details of the mechanism may be modified at will and the invention may be carried into effect by a machine of any suitable character.

Referring to the accompanying drawings, Figure 1 represents printed advertisements such as it is the object of my invention to produce. Fig. 2 represents a pair of linotypes constructed in accordance with my invention. Fig. 3 represents in cross-section my linotypes in two forms, the figure on the left representing a cross-section on the line 3 3 of Fig. 2, with the initial character extended on one side only, while the figure on the right represents a similar section with the character extended on both sides of the body. Fig. 4 is a perspective view showing a composed line of matrices with a two-line-initial matrix at one end. Fig. 5 is a similar view showing the next line of matrices, with the blank matrix at one end to produce the depression in the linotype. Fig. 6 is a cross-section showing the two-line matrix presented to the face of the mold and illustrating the cavity in which the overhanging initial is formed. Fig. 7 is a similar view showing the manner in which the blank matrix is presented to the mold to produce the depression in the linotype. Fig. 8 is a section showing the relation of an ordinary matrix to the mold.

Referring to Fig. 1, *a* and *b* represent two lines of print, and *c* the two-line initial-letter which it is the aim of my invention to produce.

In Fig. 2, A and A' represent two successive complementary linotypes, each having type characters in the upper edge. They may be in all respects like the ordinary linotypes, except that A is provided at one end with the large initial-letter *d*, which, as shown, projects beyond or overhangs one of the vertical sides, as shown, while A' is provided with a flat depressed surface *e*, of corresponding width, so that when the two linotypes are brought together in operative relations, as shown in Fig. 3, the projection *d* of the one will extend over and be supported upon the surface *e* of the other.

On the right hand, in Fig. 3, I have represented a three-line initial projecting on both sides of the central linotype and supported on those next adjacent.

When a line of ordinary matrices is presented to the mold, their characters or matrices proper *f* are of a width equal to or less than that of the mold-slot C, in which the linotype is cast.

The matrix containing the two-line characters, whether at the end of the matrix-line or elsewhere, will on presentation to the mold overhang the same, as shown in Fig. 6, leaving opposite the front face of the mold the cavity *h*, into which the metal overflows to produce the projection *d'*.

When the blank matrix or space is presented preparatory to casting the second linotype, it will lie flat against and across the face of the mold, as shown in Fig. 7, above the level of the characters or matrices proper, thus producing on the linotype the depressed surface.

When the two-line matrices are used in the ordinary Mergenthaler machine they may be provided with a full complement of distributing-teeth and delivered into the sorts-box, or made wholly without teeth and delivered before reaching the distributor.

One of the trimming-knives between which the linotypes are delivered will be cut away or suitably formed to permit the passage of the overhanging letter.

Of course the initial letters may be used at either or both ends of the line, in the middle, or elsewhere, as preferred.

While I have referred herein to letter characters, it will of course be understood that my improvement is applicable in the same form and manner to other type characters commonly used in the printing art—such, for example, as the small two-line cuts or illustrations commonly used in advertising matter.

Having thus described my invention, what I claim is—

1. A linotype consisting of a bar or slug having on its edge a series of characters of one width, and also having an initial or individual character of greater width, overhanging the side of the body, and adapted to overlap an adjoining linotype.

2. The combination of a linotype consisting of a slug or body, having on its edge a series of characters of one width, and also an individual character of greater width, overhanging the side, with a second linotype, having a series of characters and a blank surface receiving and supporting the overhanging character of the first mentioned linotype.

3. In a linotype casting mechanism, the combination of a mold and a series of matrices, one (or more) of which has its character or matrix proper arranged to overlap the front face of the mold.

4. In a linotype machine, the combination with a mold, of a line of matrices, consisting of a number of matrices with characters less in width than the mold, and one or more matrices having characters greater in width than the mold, whereby a linotype may be produced with an individual overhanging character, wider than the remaining characters on its face.

In testimony whereof I hereunto set my hand, this 27th day of June, 1894, in the presence of two attesting witnesses.

OTTMAR MERGENTHALER.

Witnesses:

THOS. J. KELLY,
CARL MUEHLEISEN.