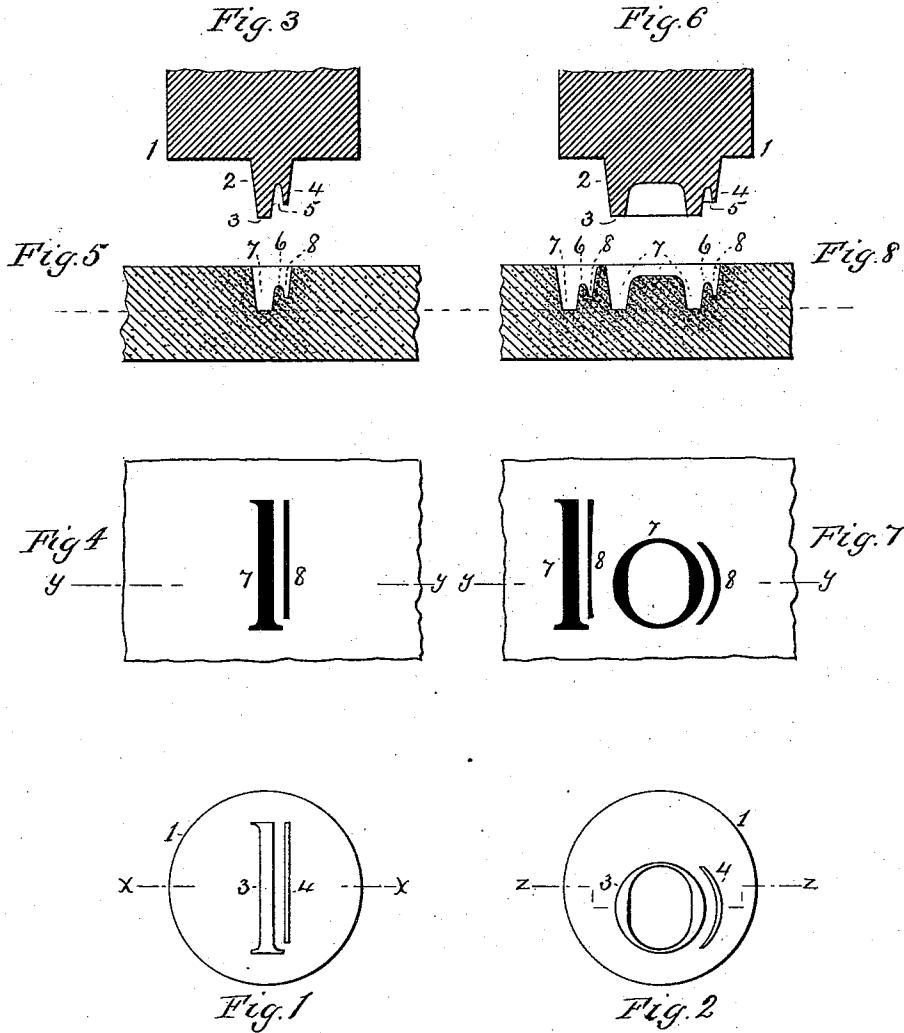


(No Model.)

C. L. REDFIELD.
TYPE DIE.

No. 468,976.

Patented Feb. 16, 1892.



Witnesses
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CASPER L. REDFIELD, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE CHICAGO MATRIX MACHINE COMPANY.

TYPE-DIE.

SPECIFICATION forming part of Letters Patent No. 468,976, dated February 16, 1892.

Application filed February 24, 1891. Serial No. 382,437. (No model.)

To all whom it may concern:

Be it known that I, CASPER L. REDFIELD, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Type-Dies, of which the following is a specification.

My invention has for its object the production of an improved form of type-dies for use in making stereotype-matrices by the successive impression of separate dies.

More particularly stated, the object of the invention is to provide means on the die for obviating the crowding of material into the last finished impression during the formation of the succeeding.

It is matter of common knowledge that in the use of any of the materials commonly used for forming matrices in matrix-machines material is crowded backward to a greater or less extent in the formation of the successive impressions, and frequently results in injuriously affecting the character-faces of the matrix. By my present improvement I propose to obviate this objection by the formation of an auxiliary branch on the die in front of the character adapted to penetrate the matrix material to a less depth than the character-face.

This improvement is illustrated in the accompanying drawings, in which—

Figures 1 and 2, respectively, show face views of the improved dies for the letters "l" and "o." Fig. 3 is a section on the line *xx* of Fig. 1. Fig. 4 is a plan view of a matrix formed by this die. Fig. 5 is a sectional view of the matrix on the line *yy* of Fig. 4. Fig. 6 is a sectional view on the line *zz* of the die for the letter "o." Fig. 7 is a plan view of the matrix containing the successive impressions of these two dies, and Fig. 8 is a sectional view of the same on the line *yy* of Fig. 7.

The die-body 1 has a projecting portion 2, which penetrates the matrix material. This penetrating portion may have plain parallel sides or inclined sides, as shown.

The portion which represents the character-

face is designated by 3. In front of the character-face is a downwardly-projecting auxiliary branch 4, preferably having a contour conforming to the forward portion of the character and designed to penetrate to a less depth than the main projection 2. As illustrated for the letter "l" it is made straight, and for the letter "o" of curved form. This branch may be entirely independent of the main projection and have its inner as well as outer walls extend to the head of the body 1; but it is preferable that the adjacent walls of the two penetrating portions should be shorter and be joined a suitable distance from the ends to form a short recess 5, into which material may crowd as the die is being impressed. A relatively low ridge 6 will thus be formed in the matrix material between the face impression 7 and the recess 8 produced by the branch 4.

When an impression is first made, as for the letter "l," it would appear as shown in Figs. 4 and 5. This impression being followed by another, as of the letter "o," in close proximity to it, the recess 8 in advance of the character-face receives a portion of the material that is crowded backward and prevents it from injuring the walls of the previously-formed character. This is shown by the narrowing of the opening 8 of the letter "l" in Figs. 7 and 8. Upon a similar plan auxiliary branches may be formed for other characters, and the invention, it is believed, will be sufficiently understood without the illustration of other letters in the present application.

Having described my invention, what I claim is—

1. A type-die having an auxiliary branch, for the purpose set forth.

2. The combination, with a type-die, of a projection independent of and shorter than the type-face projection, for the purpose set forth.

3. A type-die having a penetrating portion for the type-face and a shorter forward branch, their adjacent walls being shorter than their outer walls.

4. A type-die having a penetrating projec-

tion adjacent to the type-face projection and a recess between the two projections, for the purpose set forth.

- 5 5. The combination, with a type-die, of an auxiliary projection from the die-stock in front of the character adapted to penetrate a matrix-body to less depth than the type-face.

6. A type-die having an auxiliary branch

conforming to the contour of the forward portion of the character-face, substantially as set forth.

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Witnesses:

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