

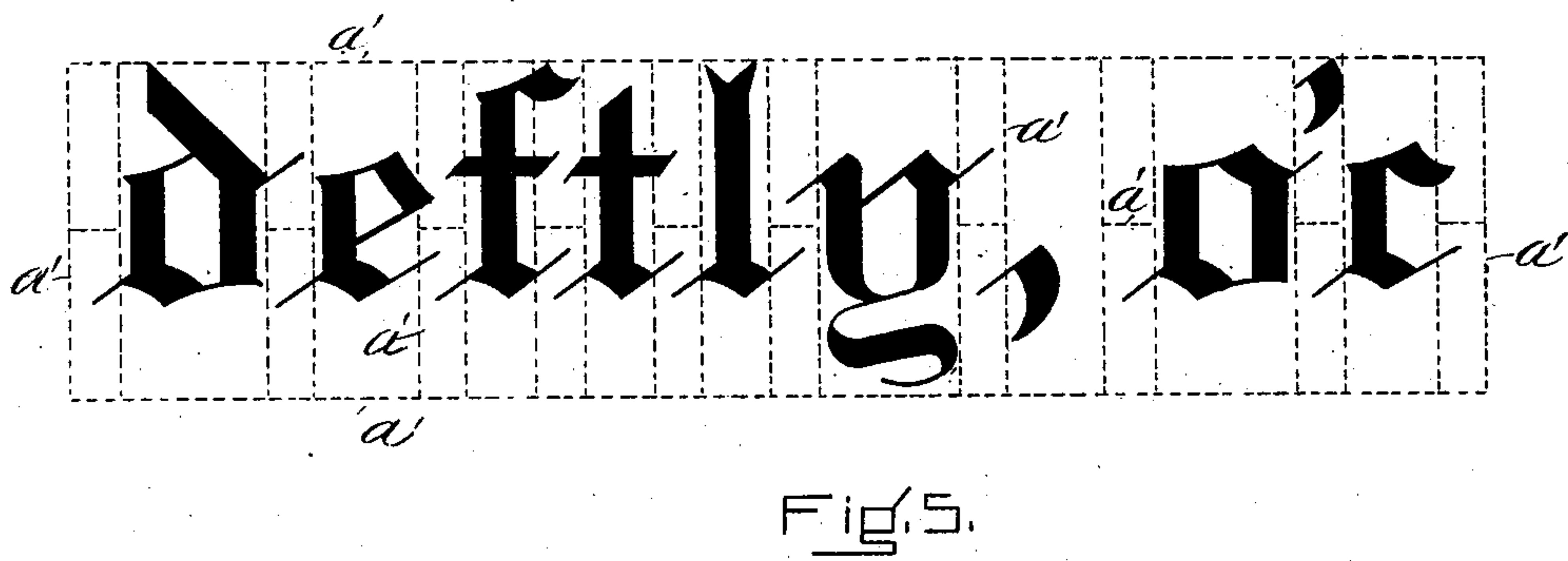
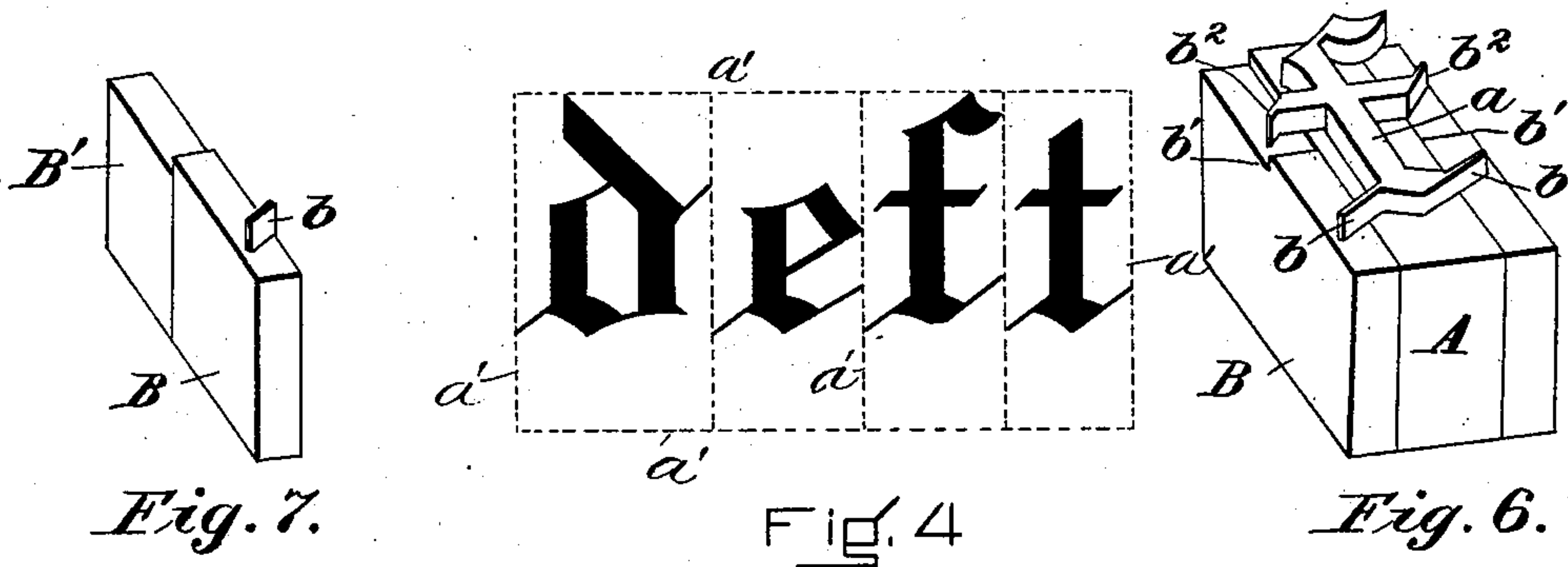
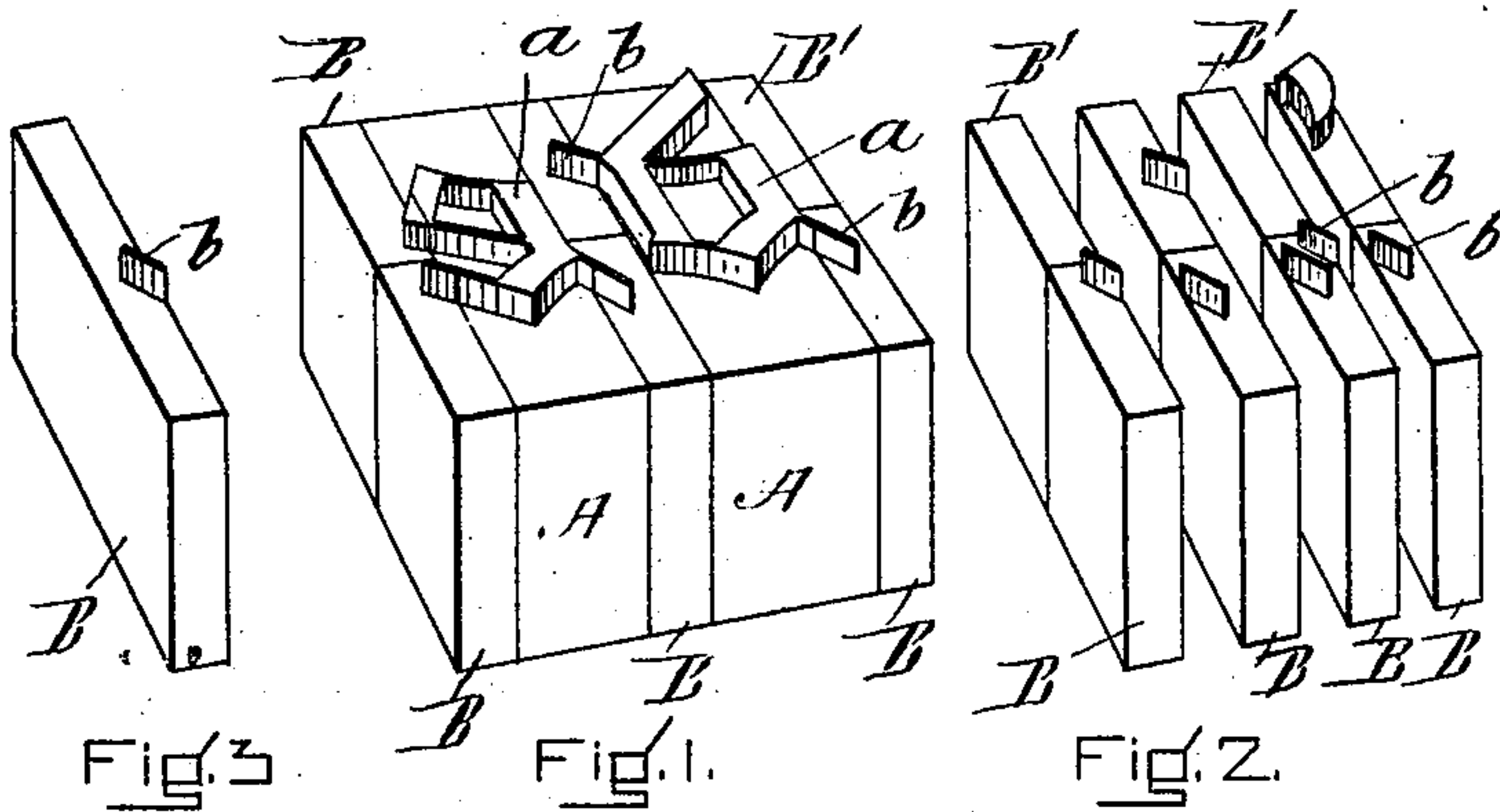
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PATENTED FEB. 10, 1903.

M. F. BENTON.  
TYPE.

APPLICATION FILED OCT. 17, 1901.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

MORRIS F. BENTON, OF NEW YORK, N. Y., ASSIGNOR TO THE AMERICAN TYPE FOUNDERS' COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

## TYPE.

SPECIFICATION forming part of Letters Patent No. 720,314, dated February 10, 1903.

Application filed October 17, 1901. Serial No. 79,026. (No model.)

*To all whom it may concern:*

Be it known that I, MORRIS FULLER BENTON, of New York, county and State of New York, have invented a new and useful Improvement in Type, of which the following is a specification.

The purpose of my invention is to produce a font of type in imitation of hand-engraving, and I have illustrated it in connection with certain text-letters which lend themselves very easily to this treatment; but I do not mean to limit the use of my invention solely to type of this design. One noticeable peculiarity of this text-letter type lies in the serifs or lines projecting from the main body of the letter and having some ornamental or other like characteristic. If a letter having such characteristics is cast upon a set of sufficient width to hold the entire letter with all its characteristics and this letter be composed with other letters of the same font, some of which have and some of which have not corresponding characteristics, it will be seen that the spacing of the matter printed will appear to be very irregular.

My invention is intended to reduce this apparent irregularity by supplying in a font with the letters which shall be without serifs extension characters, each of which may contain one or more of these serifs or ornamentations so arranged as to register with either one of a number of similar letters. In order to limit the number of these extension characters, I prefer to make them on a body one-half the size of the body containing the letters of the font, each extension character being capable of use with either one of others of like nature or with a space of the same set, as will be understood from what is stated below.

My invention will be understood by reference to the drawings, in which—

Figure 1 shows in perspective a series of types constructed in conformity to my invention. Fig. 2 is a collection of extension characters, some of which have registering serifs or ornamentation of the character referred to and other supply-spaces of the same set as the extension character. Fig. 3 shows a modification of the construction of these

spaces, as will be described below. Fig. 4 shows an impression taken from type constructed after the present manner, and Fig. 5 a corresponding set of letters printed from a font embodying my invention. Figs. 6 and 7 represent a modification referred to below.

A A are types each having a face *a*.

B B are extension characters each having a face *b* made up of serifs or ornamentations, &c., adapted for use with one or more of the faces on the types A and arranged to register with some portion thereof. B' designates spaces adapted to be used with the extension characters B. It will be readily understood that the faces of these extension characters may be varied somewhat for use after the same letter. Thus the extension character to follow a final "e" may differ from the extension character to be used between an "e" and "f" in the middle of a word, for the reason that in the first instance the space-piece will provide only the right-hand characteristic or serif for the letter "e," while in the second instance it will carry the right-hand serif of the letter "e," and it will also carry the left-hand characteristic or serif of the letter "f." This latter instance emphasizes the important feature of this invention, which enables two letters to be set close together, with their serifs projecting into the same vertical space, thus giving the word to this extent the appearance of having been engraved. This will be understood by comparing the letters in Fig. 4 with those in Fig. 5. It will be noted that in Fig. 4 there is an apparent irregularity in the spacing of the letters due to the arrangement of the serifs. The body and set of the type carrying these letters is indicated in both figures by the dotted lines *a'*. In Fig. 5 it will be seen that the letters may be overlapped, as it were—that is to say, the serifs of one letter lie in the same vertical line with the serifs of another letter, so that the letters may be put very closely together and without losing their characteristics, the serifs forming the faces of the extension characters. The ornamentation of the letters may, in fact, be made very much more elaborate and yet require less space in the setting of the type. These



extension characters may be made on bodies the same as that of the letter, as shown in Fig. 3, or divided in halves, as shown in Fig. 2, this latter arrangement being preferable in that with a fewer number of extension characters a larger number of designs may be made up. It is also possible to divide them into other fractions, if thought best.

As has been intimated above, this invention may be applied to fonts of other designs than that I have shown, the invention consisting not in any specific design of font nor of serifs or other ornamentations, but in combining with a font a series of separate extension characters whereby each letter will be separated from its neighbor, these extension characters carrying some addition to the letter, which makes it more ornate, and perhaps an apostrophe or punctuation-mark as well. Much freedom of design is thus permitted, as portions of any character may overlap the intermediate spaces on either side. For example, all the ascenders of a font may overlap the total width of the intermediate pieces on the right-hand side, as shown in the drawings with the letter "f," and in the same way all the descenders may overlap on the left-hand side, or they may all overlap nearly half the set of the extension characters on either or both sides without the space allotted to one character trespassing on that of another, and thereby causing them to ride. Moreover, by not using these extension characters the letters may be changed in appearance by leaving off some of the terminal lines, or the terminal lines may be left off entirely, thus giving the appearance of an entirely different font.

In designing a font of type with which to embody my invention the extension characters need not be many in character, for each one may be so designed as to form an addition to several letters having the same general shape. Thus one design may be used after either one of the "middle letters," so called, and another design between two of the middle letters, &c., and when half-extension pieces are used this design may also be used between the body or open portion of the ascending letters and one of the short letters, an appropriate half-extension character being used for the ascending portion of the letter. Thus with but few additional characters the appearance of a font of old design may be radically changed.

Where the character of the design will permit and when the extension characters are cast on a body one-half the size of that on which the font is cast, the extension characters may be reduced to three in number to be used in connection with a blank space of the same body and set as the extension characters: No. 1, an extension character consisting of a single line which may be used on the bottom right-hand side of a character and the same inverted used on the top left-hand side; No. 2, an extension character consist-

ing of a single line which may be used on the lower left-hand side of a character and the same inverted used for the upper right-hand side; No. 3, an extension character consisting of two lines which may be used between any two middle letters requiring a line from each side on the bottom and the same inverted used between any two middle letters requiring a line on each side on the top.

In the above description I have used the term "letter" as inclusive not only of the letters, but also of the numerals, punctuation-marks, and other characters ordinarily found in a font of type and in distinction from the extension characters.

It will be noted that by having the extension characters cast with a deep shoulder, deeper than that of the type, it is possible in certain designs of type to avoid kerning on certain letters, like lower-case "f," where there may be an overhang on either or both sides. This construction is shown in Fig. 6, wherein an extension-piece is cast with a deep shoulder, as at  $b'$ , so that, for example, the overhang  $b^2$  of small "f" may be cast sufficiently thick to make it strong. Fig. 7 shows a space-piece  $B'$  cast with a shoulder deep in comparison with the shoulder on the extension-piece  $B$ . In describing these extension characters it must be borne in mind that they combine spaces with the addition or ornamentation to a letter, which addition or ornamentation has no meaning in itself, but which serves to complete the letter from the artistic standpoint merely and in the setting of the type to allow one letter to apparently overlap the other by virtue of the fact that the extension character may contain two additions or ornamentations, one to be applied to the preceding letter and one to the succeeding letter. Moreover, by being made in bodywise fractions—that is, fractions of that dimension of the face of the type which carries the height of the letter—a fewer number of different extension characters may be supplied to the font, as the characters may be set in either one of two positions, the same character thus serving either as an addition, for example, to the lower part of the preceding letter or the upper part of the succeeding letter, and where both are used between the same pair of letters the letters will appear to overlap.

My invention therefore consists in extension characters which are essentially space-pieces having upon them certain faces which may be either additions or ornamentations to the letters between which they are set, giving the appearance in some cases of an overlapping of the letters and in other cases allowing the letters to approach more nearly to each other than has heretofore been practicable in some kinds of type.

What I claim as my invention is—

1. In a font of type, extension characters, each carrying a face forming an addition or ornamentation adapted to register indiscrimi-



nately with several letters of said font, each extension character being a bodywise fraction of the letter-carrying type-bodies of the font, and adapted to be used either in a normal or reversed position, as described.

2. In a font of type, extension characters, each carrying a face forming an addition or ornamentation adapted to register indiscriminately with several of the letters of the font, each extension character being a bodywise fraction of the letter-carrying type-bodies of the font, and adapted to be composed with other extension characters and spaces to form a composite extension character of equal dimension bodywise with the letter-carrying type-bodies, as described.

3. In a font of type, extension-pieces, each carrying a face forming an addition or ornamentation indiscriminately to several letters in said font, and adapted to be composed with said letters, the said extension-pieces serving to space said letters and having faces adapted to register with the faces of said letters and form a finish therefor, whereby an impression from said type will appear to overlap, as described.

4. In combination, a series of type and a

series of extension - pieces arranged alternately, the face of said type comprising letters and said extension-pieces serving to space said letters, certain of said extension-pieces having faces adapted to register both with the face of the next preceding type and with the face of the next succeeding type to form an independent finish to each, whereby an impression from said type will appear to overlap, as described.

5. In combination, a series of type and a series of extension-pieces adapted to be arranged alternately, the faces of said type comprising letters and said extension-pieces comprising halves adapted to be composed bodywise to form spaces to space said letters, certain of said halves having faces adapted to register either with the face of the next preceding type or by reversal with the face of the next succeeding type to form an independent finish to either, as described.

In testimony whereof I hereunto set my name this 2d day of October, 1901.

M. F. BENTON.

Witnesses:

R. V. WALDO,

E. J. FUHRMANN.