

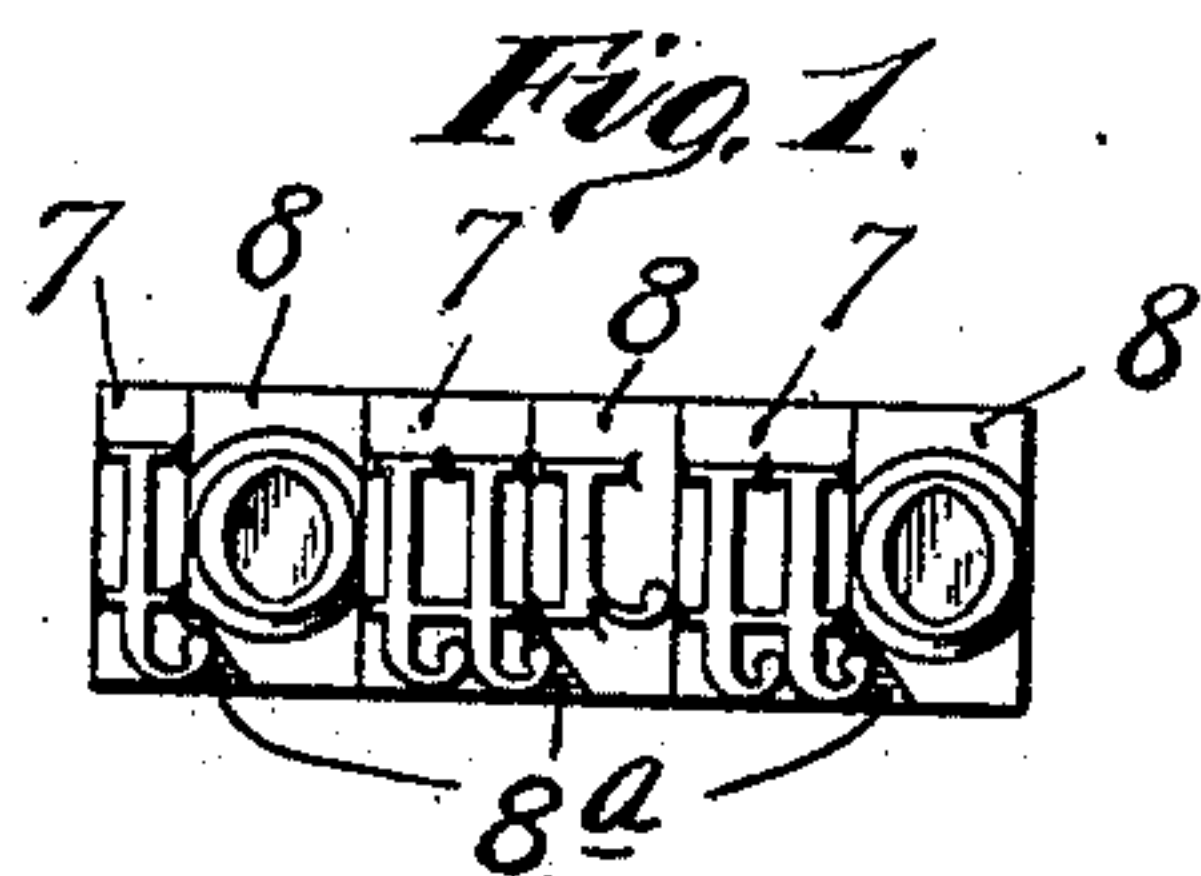
No. 696,734.

G. A. GOODSON.  
FONT OF TYPE.

Patented Apr. 1, 1902.

(Application filed Sept. 3, 1901.)

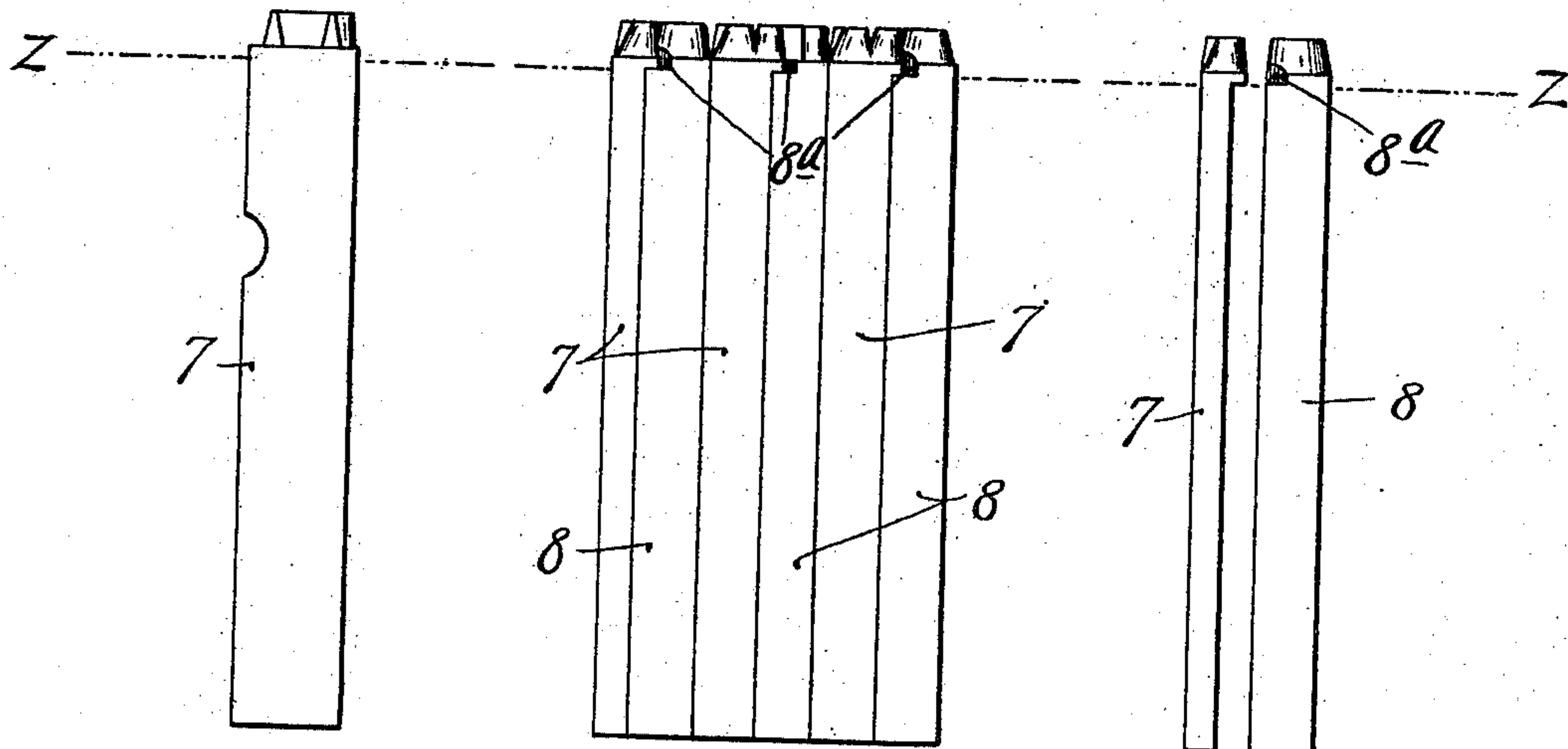
(No Model.)



*Fig. 2.*

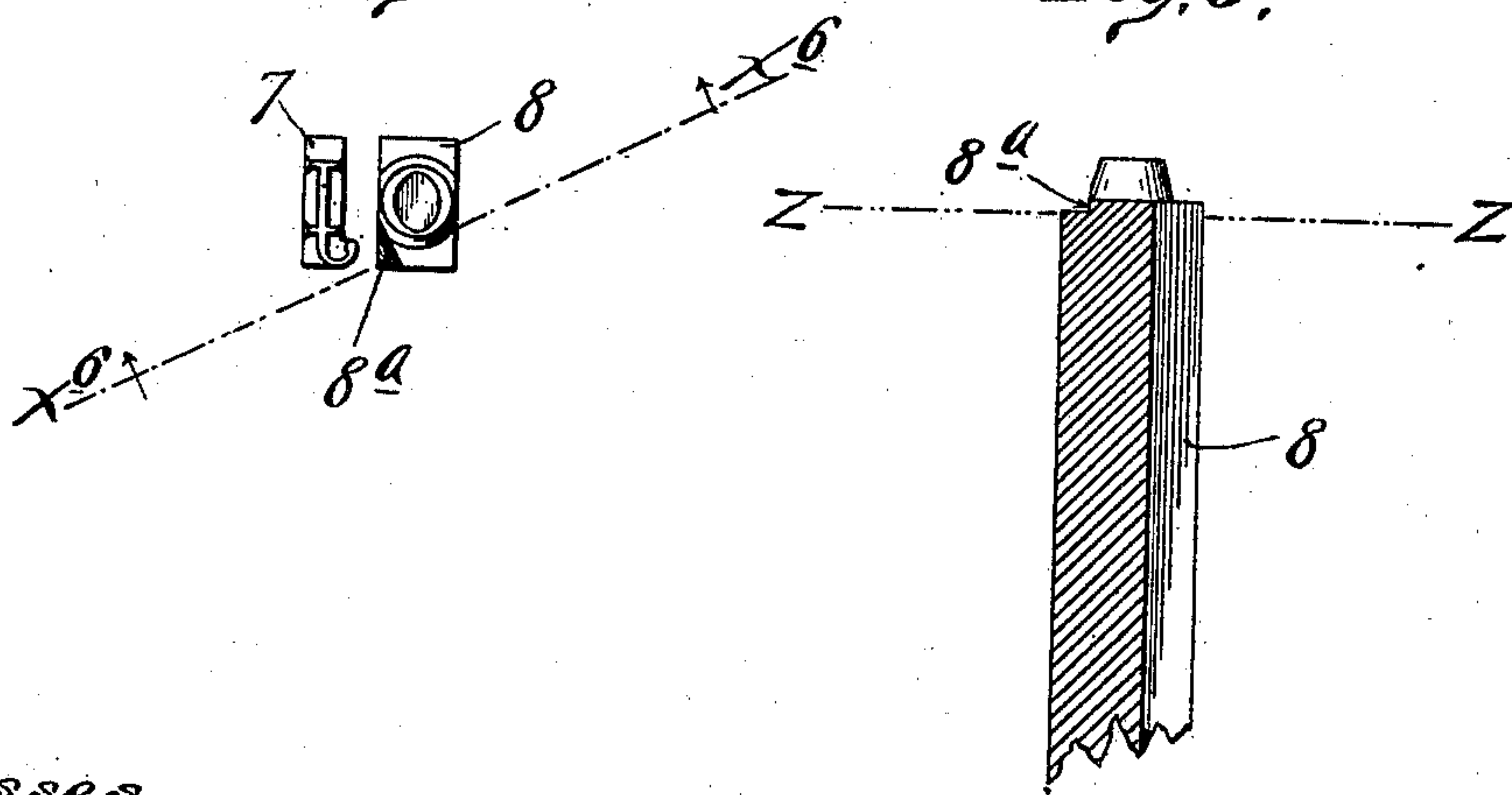
*Fig. 3.*

*Fig. 4.*



*Fig. 5.*

*Fig. 6.*



Witnesses,  
H. D. Kilgore,  
Robert Otto.

Inventor,  
George A. Goodson  
By his Attorneys,  
Williamson & Merchant



# UNITED STATES PATENT OFFICE.

GEORGE ARTHUR GOODSON, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO  
THE GOODSON GRAPHOTYPE COMPANY, OF NEW YORK, N. Y., A CORPO-  
RATION OF NEW JERSEY.

## FONT OF TYPE.

SPECIFICATION forming part of Letters Patent No. 696,734, dated April 1, 1902.

Application filed September 3, 1901. Serial No. 74,064. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE ARTHUR GOODSON, a citizen of Canada, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Fonts of Type; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an improved font of type. The characteristic feature of improvement is that this font of type contains kerned type and other coöperating type, neither of which kinds of type require any trimming or dressing in order to provide for the use of the kerned type. This characteristic feature affords a font of type which may be cast and set into justified lines on a type-casting machine.

Type-founders' type as made prior to my invention included kerned type; but the kern had to be undercut or filed away after the kerned type was cast in order to afford the necessary clearance to permit the kerned portion of the type to overhang the body portion of an adjacent or coöperating type alongside of which the kerned type might happen to be set. Otherwise stated, the kern had to be completed by hand. It could not be cast in complete or finished form, for the reason that it could not draw from the matrix. It is obvious, of course, that if a matrix was provided with such reverse surface as would be required to produce a kern with the undercut or beveled surface required for coöperation with other ordinary type that such a kerned type could not be drawn out from the matrix.

According to my invention I cast the kerned type just as the type-founders have hitherto done; but, contrary to the old practice, I leave the kern as it comes from the matrix, or, in other words, I leave the kern with the abrupt or right-angled shoulder and use the same in that way when the type is set. I do not undercut, file, or dress the kern in any way. The other type of the font which would come into coöperation with the kerned type—to

wit, all of the other type of the font with the exception of certain logotypes, &c.—have their walls formed to receive or seat the kerns of the kerned type when the type are set. More specifically stated, I form all the other letters of the font with the necessary bevel for coöperation with the kerned type with the exception of "l," "j," "i," and "b" and the logotypes "ff," "fi," "fl," "ffi," "ffl." They are so cast and used as cast without requiring any filing or trimming. Hence this font of type may be cast and set into justified lines of individual type on a type casting and setting machine, and this was the special use for which the invention was designed.

The invention is illustrated in the accompanying drawings, wherein like notations refer to like parts throughout the several views.

In said drawings, Figure 1 is a view in plan upside down, illustrating a form of type containing the kerned and other coöperating type constructed in accordance with my invention. Fig. 2 is an edge or side elevation of the form of type shown in Fig. 1. Fig. 3 is a back view of the same. Fig. 4 is a back view of the left-hand pair of type shown in Figs. 1 and 3—to wit, the types "f" and "o"—pulled apart from each other. Fig. 5 is an upside-down plan view of the same pair of type as shown in Fig. 4 and in the same relation to each other, and Fig. 6 is a vertical section on the line  $x^6 x^6$  of Fig. 5.

In the matrix employed on the Goodson type casting and setting machine disclosed in my prior patents, No. 530,481, of date December 4, 1894, and No. 609,098, of date August 16, 1898, countersunk surfaces are formed outward of the matrices proper, so that a portion of the type-body is cast in the matrix. This is done to insure absolute precision in the relative location of the type-face on the type-body. Otherwise stated, the parting-line (indicated in the drawings, Figs. 2, 3, and 4, by the dotted lines  $z z$  between the matrix-block and the body-mold) is below the upper ends of the type-body. This fact is stated to render the drawings herein more easily read with reference to the showing of the kerned



type and the formation of the other type of the font for coöperation with the untrimmed kern.

By reference to the drawings it may readily  
5 be seen that the type marked with the numeral 7 are kerned type and that the type marked with the numeral 8 are formed with seating-surfaces 8<sup>a</sup> to receive and seat the  
10 kerns of the kerned type. The kerned type shown are the letters "f," "ff." The coöperating type shown are the letters "o" and "r." These are deemed sufficient for purposes of illustration. As stated in the introduction, all the letters which would come into  
15 coöperation with the kerned type are of course provided with the necessary seating-surfaces 8<sup>a</sup>. By comparing the different views, and especially Figs. 1, 5, and 6, it will be seen that the seating-surfaces 8<sup>a</sup> of the type 8 are  
20 formed with the proper draft-line to draw from the matrix. Since the type shown are assumed to have been made on the Goodson machine, wherein the parting-line  $z z$ , between the matrix-block and the body-mold, is  
25 below the upper end of the body of the type, the seating-surfaces 8<sup>a</sup> for receiving the kerns of the kerned type are necessarily formed partly on the type proper and partly on the type-body, and that portion of the same which  
30 is formed in the body may be substantially straight.

The character of the kern on the kerned type is best seen in Figs. 1, 3, 4, and 5, from an inspection of which it is obvious that the  
35 kern is left with an abrupt or right-angle shoulder and that the whole of the kern is formed with the necessary slope or draft-line on the face for permitting the same to draw

from the matrix. Just as in the case of the coöperating type 8 in respect to the seating-surface thereof the part of the kern which is formed in the body of the kerned type may be substantially straight and nevertheless draw from the matrix.

From the illustrations and the statements  
45 heretofore made it must be obvious that the type constructed according to this invention may be cast and set on a type casting and setting machine. The improvement is therefore a highly important and valuable one for  
50 that special purpose, inasmuch as it enables the use of kerned type, thereby giving print appearing the same as type from type-founders' type. Of course these same type so cast and set on a machine can be pried and be re-  
55 set by hand, just as type-founders' type. This font of type is used for making corrections when necessary in forms already set on the machine.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

A font of type containing kerned type with untrimmed kerns and other coöperating type with seating-surfaces for receiving or seating  
65 the kerns of said kerned type when the type are set, which seating-surfaces are formed partly on the type proper and partly on the type-body, substantially as and for the purposes set forth.

In testimony whereof I affix my signature  
70 in presence of two witnesses.

GEORGE ARTHUR GOODSON.

Witnesses:

CHAS. E. HUNTER,  
JAS. F. WILLIAMSON.