

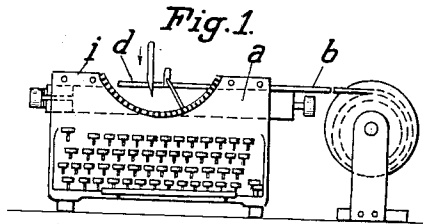
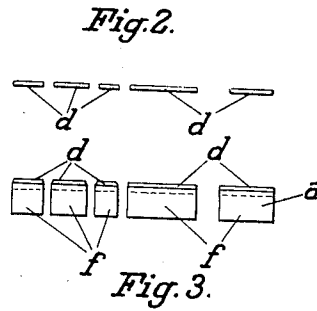
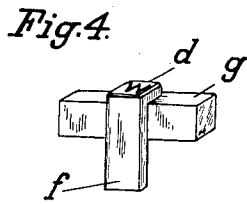
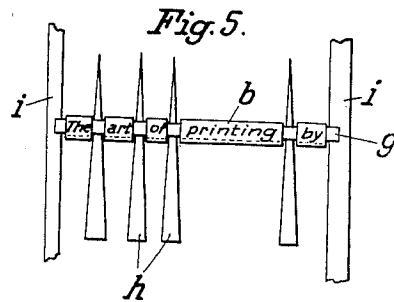
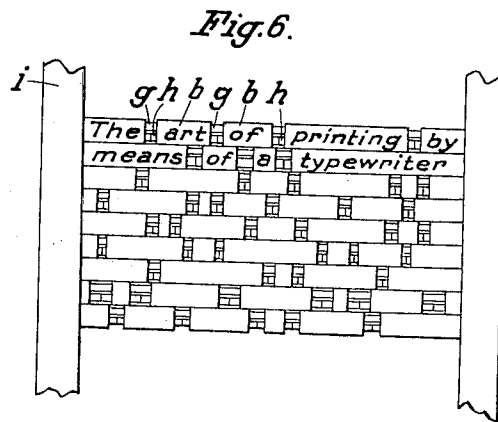
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W. SCHAFFER

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PRINTING PROCESS

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PRINTING PROCESS

Application filed December 4, 1922, Serial No. 604,772, and in Germany December 12, 1921.

This invention relates in general to a printing process and more particularly to a process for producing a reproducing medium to be used in a photomechanical process for printing purposes. This is accomplished in accordance with the invention by producing a line of characters as for instance by means of a typewriting machine of the kind disclosed in U. S. Patent No. 1,466,491, granted to Werner Schäffer under date of August 28, 1922, and reissued January 20, 1925, under Reissue No. 15,985. In these patents type bars are shown, which are adapted to be arranged one beside the other in such a manner that a line of type is formed. For adjusting the length of a said line of type, interchangeable spacers are provided between the typebars. The lines of types are printed linebyline. Another way for producing lines for a reproducing medium is hereinafter described. In the latter process a line of printed characters is produced by means of a typewriting machine and the length of the line is thereupon adjusted by changing the spaces between the words. The adjusted line of printed characters is used in a graphic reproducing process for printing purposes. The reproducing process employed may be the well known "Manul" process or any other reproducing process. The words in a line may be arranged on laterally displaceable members, or on a unit or strip which is cut between the words so as to enable spaces to be inserted between them for the purpose of spreading or extending the line to a predetermined length. The lines of characters are written or printed by a typewriting machine on suitably shaped blanks laterally displaceable with respect to each other and then reproduced by a lithographic, zinkographic, photographic or offset printing process or the like.

In the drawings the invention is illustrated by way of example.

Fig. 1 shows a typewriting machine adapted to be used in a process according to the invention.

Fig. 2 indicates cut-off parts of a strip on which words are written in the said machine.

Fig. 3 shows an arrangement of the said

cut-off parts of the strip on L-shaped carriers.

Fig. 4 is a perspective view of an L-shaped carrier supported on a rod, said carrier being similar to those shown in Figure 3.

Fig. 5 is a top plan view of the carriers shown in Figure 3 with parts of the strip.

Fig. 6 is a plan view of a series of assembled and adjusted lines of type.

In the drawings *a* indicates a typewriting machine in which a strip *b*, adapted to be typed, is guidable. *c* is a knife adapted to cut-off parts *d* from the strip *b* according to the length of the words formed in the typewriting machine. *f* (Figs. 3 and 4) are L-shaped carriers on which the cut-off parts of the strip may be attached. *g* is a rod on which the carriers *f* may be supported. *h* are wedge shaped spacing members of solid material. *i* are lateral parts adapted to determine the length of the line.

With the aid of the typewriting machine it is possible to type in a manner as usual in other type lever writing machines. The strip is forwarded each time for the breadth of a type or the like. After each writing of a word on the striking of the spacing key a cutting-off of the strip will happen. The cut-off parts of the strip are then attached on suitable carriers of for example L-form. The supports for the words may be adjusted by means of the wedge-shaped spacers *h*.

Fig. 6 shows the carriers *b* assembled to lines and the lines assembled line by line. The length of the lines are determined by the lateral parts *i* and the carriers are adjusted by wedge-shaped spacers *h*. The spacers to be inserted between each two words must be interchangeable but may be formed in any convenient manner, for instance as wedges shown in Figures 5 and 6 or as elastic springs shown in the U. S. Patent No. 1,466,491 and Reissue Patent No. 15,985. From an inspection of Figures 5 and 6, it will be understood that wedges inserted in one line do not interfere with wedges placed in an adjacent line spaced therefrom at the usual distance. Thus, as shown in Figure 5, the wedges *h* are arranged parallel to the plane in which the successive lines lie whereas as shown in Fig-

ure 6, the wedges *h* are arranged normal to said plane.

Claims:

1. In a process for producing a reproducing medium to be used in a photomechanical reproducing process for printing purposes, forming a line of characters on a strip by means of a typewriting machine, cutting the strip between words, arranging the words in the line on laterally-displaceable members, and justifying the line by changing the space relations of the words in the line by inserting interchangeable spacers between each two laterally-displaceable members.
2. In a process for producing a reproducing medium to be used in a photomechanical reproducing process for printing purposes, forming a line of characters by means of a typewriting machine, arranging the words in the line on laterally displaceable members of different length, and justifying the line by changing the space relations of the words in the line by inserting interchangeable spacers between each two laterally-displaceable members.
3. In a process for producing a reproducing medium to be used in a photomechanical reproducing process for printing purposes, forming a line of characters on a strip by means of a typewriting machine, cutting the strip after having formed a word, attaching the strip to laterally displaceable supports, and justifying of the line by changing the space relations of the words in the line by inserting interchangeable spacers between each two laterally-displaceable supports.
4. In a process for producing a reproducing medium to be used in a photomechanical reproducing process for printing purposes, forming a line of characters by means of a typewriting machine, arranging the words in the line on laterally displaceable L-shaped members, and the justifying of the line by changing the space relations of the words in the line by inserting an interchangeable spacer between each two laterally-displaceable L-shaped members.
5. The process for producing a reproducing medium for use in a photomechanical reproducing process for printing purposes, which process consists in arranging word-forming groups of characters in a line by means of a type-writing machine, and in placing word-forming groups on supporting members, in changing the spaced relations of said word groups by interposing interchangeable spacers between the supporting members for adjacent word-groups for justifying the line, and in transferring the justified line to a suitable carrier.
6. A process according to claim 5, in which a said character is written in the machine on a suitable carrier.
7. The process for producing a reproducing medium for use in a photomechanical re-

producing process for printing purposes, which process consists in forming a plurality of lines of characters by successive operations of a type-writing machine, in mounting word-forming groups of the characters on supporting members, in interposing interchangeable spacers between adjacent word-forming groups for individually and successively justifying said lines by changing the spaced relations of the word-forming groups therein, and in transmitting the justified lines of characters on a suitable carrier.

8. A process according to claim 7, in which the justified lines are successively transmitted to said carrier.

9. The method of manufacturing a printing plate, which method consists in assembling a plurality of lines of characters by successive operations of a typewriting machine, in mounting word-forming groups of the characters on supporting members, in interposing interchangeable spacers between adjacent word-forming groups for individually and successively justifying said lines, in transmitting the justified lines of characters on a suitable carrier, and in photomechanically transferring the ensemble comprising said justified lines to a suitable printing plate.

10. A method according to claim 9, in which the justified lines are successively transmitted to said carrier.

11. The process of constructing a reproducing medium for the photomechanical reproduction of printing, which process consists in forming a line of characters by means of a typewriting machine, in mounting word-forming groups of said characters on laterally-displaceable supports, and in changing the spaced relation of the word-forming groups by inserting interchangeable spacers between adjacent supports which carry the word-forming groups for justifying the line.

12. The process of constructing a reproducing medium for photomechanical reproduction printing processes, which process consists in printing word-forming groups of characters on a suitable carrier by means of a typewriting machine, in cutting said carrier between successive adjacent word-forming groups, in mounting the word-forming groups on supports, and in inserting interchangeable spacers between the adjacent successive supports for justifying the line.

13. The process for producing a reproducing medium for use in a photomechanical reproducing process for printing purposes, which process consists in forming groups of printed characters in a line on suitable supports, in interposing spacers between adjacent supports for justifying the line, and in transferring the justified line to a suitable carrier.

In testimony whereof I have affixed my signature.

WERNER SCHÄFFER.