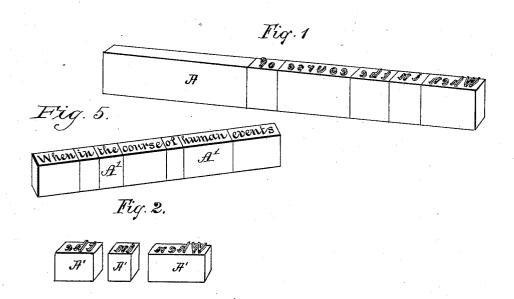
(No Model.)

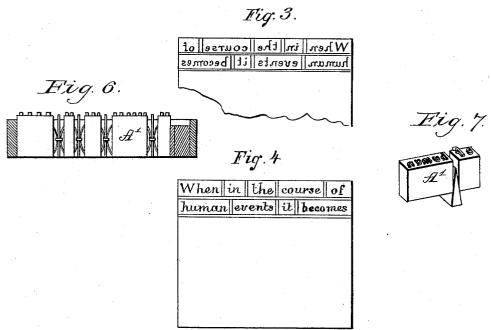
## B. A. BROOKS.

PREPARATION OF PRINTING SURFACES.

No. 417,142.

Patented Dec. 10, 1889.





Robert Bartlett

Inventor.

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## UNITED STATES PATENT OFFICE.

BYRON A. BROOKS, OF BROOKLYN, NEW YORK.

## PREPARATION OF PRINTING-SURFACES.

SPECIFICATION forming part of Letters Patent No. 417,142, dated December 10, 1889.

Application filed April 7, 1887. Serial No. 234,010. (No model.)

To all whom it may concern:

Be it known that I, Byron A. Brooks, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in the Preparation of Printing-Surfaces, of which the following is a description in such full, clear, concise, and exact terms as will enable any one skilled in the 10 art to which my invention appertains or with which it is most nearly connected to make and use the same, reference being had to the accompanying drawings, making part of this specification, and to the letters and figures of 15 reference marked thereon.

Similar letters of reference indicate corresponding parts in all the figures.

The object of my present invention is to provide a printer's form which may be made with a minimum expenditure of labor, and which shall contain the least possible number of errors, and which will afford great facility for correction before or after proof-reading.

Figure 1 represents in parallel perspective 25 a number of relief-logotypes arranged side by side in a line. Fig. 2 represents three relief-logotypes separated. Fig. 3 illustrates a top view of the printer's form composed of such relief-logotypes. Fig. 4 illustrates a similar 30 form composed of matrix-logotypes. Fig. 5 illustrates in parallel perspective a number of matrix-logotypes arranged side by side in a line. Figs. 6 and 7 represent, respectively, side and perspective views of logotypes sep-

35 arated by automatic adjusting-spaces. My invention consists of certain improvements in the art of preparing printing-surfaces, which will be specifically pointed out in the claims concluding this specification. The following is a description of the features illustrated in the accompanying drawings, which will enable any one skilled in the art to employ in a preferred form the invention

pointed out in the claims of this specification.

In the practice of my invention I employ word-types alone, or in combination with ordinary letter-types, which are justified in lines or forms by the use of printers' spaces of or-dinary or any suitable construction or de-sign. The locking may then be accomplished

in the ordinary and well-known manner.

Referring to Fig. 1, A' is a bar, preferably of the width and height of printers' type, but of indefinite length. This bar should be deep enough at least to permit the logotypes 55 when they are formed to be locked in lines or forms by lateral pressure. I prefer to make them of the height and width of printers' type to facilitate correction, as hereinafter pointed out. Upon the edge of this bar word-forms 60 in relief are successively made by the use of the matrix letter-dies. In this way the form of the several letters composing suitable words are made in relief on the bar A, and thus word-forms are obtained. The bar is cut be- 65 tween these word-forms, preferably as each word-form is made on the bar, thus making what I call "relief-logotypes," or word-types, in the order required. (See Fig. 2.) These logotypes are then set up in lines and justi- 70 fied into lines or forms by the use of printers' spaces or space-type, and also locked in the ordinary or any suitable manner. Such a form is illustrated in Fig. 3.

Referring to Fig. 5, A' is a bar like that 75 illustrated in Fig. 1 and hereinbefore decombed.

scribed. Upon the edge of this bar-matrix word-forms are successively formed by the use of relief letter-dies. In this way the forms of the several letters composing suitable 80 words are made on the bar A', and thus matrix word-forms are obtained. The bar is cut between the word-forms, preferably as each word-form is made upon the bar, thus making matrix-logotypes or word-types in the order 85 required. These logotypes are then set up in lines and justified by the use of printers' spaces, and also locked in the ordinary manner or any suitable manner, and as hereinbefore described. Such a form is shown in 90

Instead of employing ordinary printers' spaces for justifying logotypes into forms, automatically-justifying spaces, as illustrated, Figs. 6 and 7, may be employed. The auto- 95 matic spaces shown in Fig. 6 have springs, which, after the logotypes and spaces are set up in forms and the rule moved up to the determined position to conform to the width of line required, insure an even space between icc the several logotypes. The wedge space shown in Fig. 7 is driven home by pressure

applied to the bottom of it and the other similar spaces simultaneously, thus giving an equal space between all the logotypes.

equal space between all the logotypes.

Having composed justified lines or forms of logotypes as above described, the printing-impression may be taken directly from them, or stereotype or electrotype plates may be made and the types immediately melted down, thus saving all labor and avoiding all error

10 due to the distributing of type.

The use of logotypes in the manner herein described provides for a simple and rapid method of doing the work and gives great facility for correction, while it avoids the 15 necessity of distributing the type and the errors inevitably connected therewith. Corrections may be readily made by cutting out or removing the rejected logotypes and substituting therefor new logotypes or ordinary letter-types, the form being subsequently justified.

The automatic spaces and the divisionstrips illustrated and described herein and the methods of employing the same are not 25 claimed in this patent, as they are made the subject-matter in part of an application for a patent filed by me on or about the 18th day of November, 1889, Serial No. 330,639.

What I claim, and desire to secure by Let-

30 ters Patent, is-

1. In the method of preparing printingsurfaces, impressing letter-dies on a bar of suitable material, thereby forming on said bar word-forms, then cutting said bar between said word-forms, thereby forming logotypes, then locking the logotypes thus obtained in lines or forms by pressure applied to their sides or ends, substantially as described.

2. In the method of preparing printing- 40 surfaces, impressing letter-dies on a bar of suitable material, thereby forming on said bar word-forms, then cutting said bar between said word-forms, thereby forming logotypes, then setting up and justifying said logotypes 45 thus obtained in lines or forms by printers'

spaces, substantially as described.

3. In the method of preparing printingsurfaces, impressing relief letter-dies on a bar of suitable material, thereby forming on 50 said bar-matrix word-forms, then cutting said bar between said word-forms, thereby forming matrix-logotypes, then locking said logotypes into lines or forms by pressure applied to their sides or ends, substantially as de- 55 scribed.

BYRON A. BROOKS.

Witnesses:

J. EDGAR BULL, F. D. WHITING.