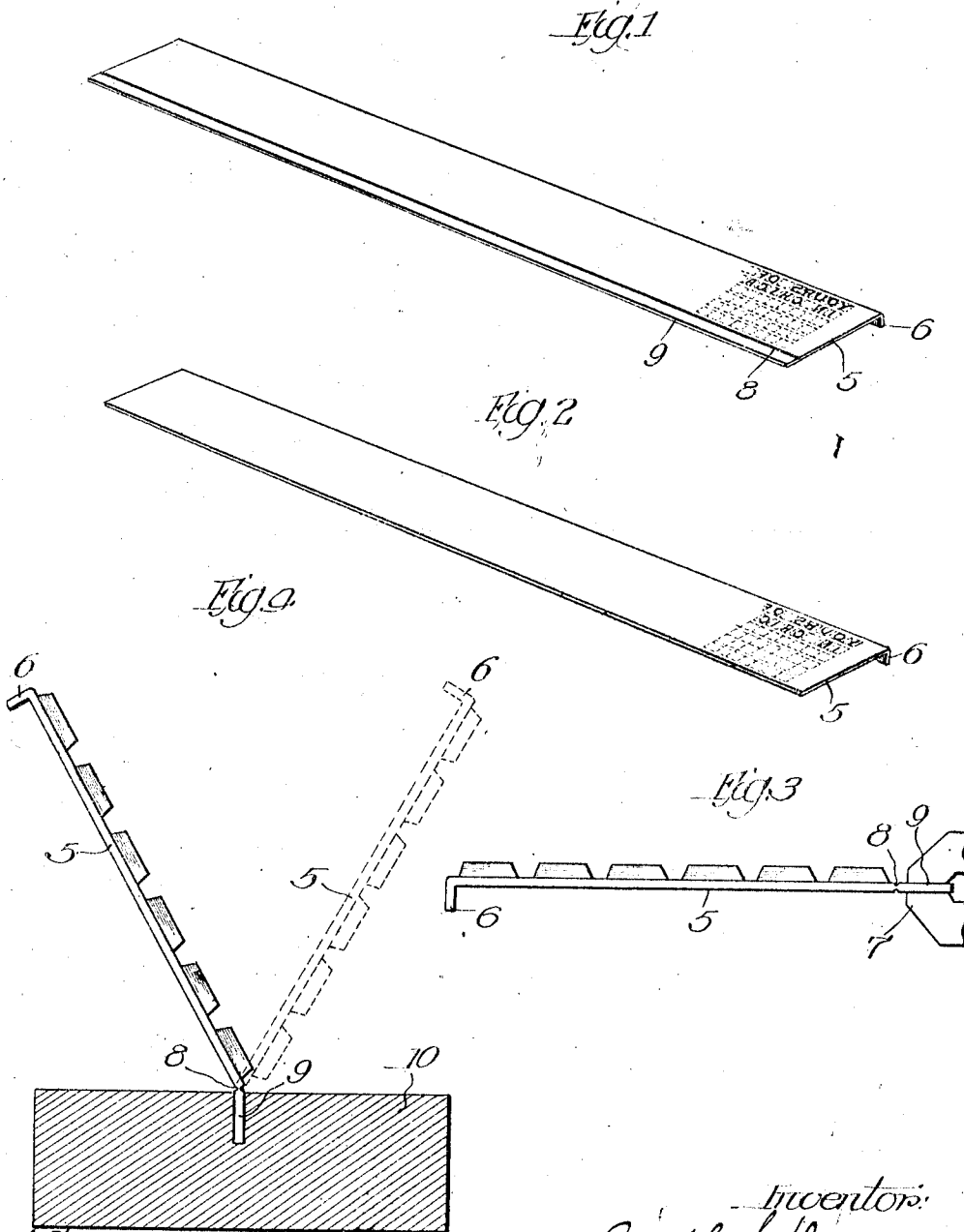


J. S. DUNCAN.
 PRINTING FORM SECTION.
 APPLICATION FILED MAR. 23, 1912.

1,054,285.

Patented Feb. 25, 1913



Witnesses:
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UNITED STATES PATENT OFFICE.

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PRINTING-FORM SECTION.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH S. DUNCAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois; have invented certain new and useful Improvements in Printing-Form Sections, of which the following is a specification.

This invention relates to printing form sections adapted for employment as the units of a sectional printing form such as constitutes the subject matter of a co-pending application Serial No. 685,815, filed March 23, 1912.

One of the primary objects of the present invention is the provision of printing form sections having printing characters stamped up therefrom in close simulation of type-writing characters and adapted to be assembled in juxtaposition upon a suitable form bed to produce a printing form having a uniform printing surface.

In stamping up printing characters in a metal plate by means of a graphotype and other similar machines, the plate is held between jaws which grip the plate at one edge thereof, and therefore it will be apparent that printing characters cannot be stamped along that portion of the plate which is gripped by the jaws. That portion of the printing plate which has been gripped by the jaws will of course space the bottom line of type on that plate at too great an interval from the line of type at the top of the next below plate, and therefore it is an important object of the present invention to provide for conveniently removing that portion of the plate which has been held by the jaws of the punching or stamping machine.

My invention will be readily understood from the following description when considered in connection with the accompanying drawings illustrating one preferred embodiment thereof.

Referring to the drawings—Figure 1 is a perspective view of a printing form section embodying my invention; Fig. 2 is a similar view with the temporary extension of the section removed; Fig. 3 is an end elevation of a form section showing a fragment of the jaws which hold the sections in the typograph; and Fig. 4 is a view showing the manner of removing the temporary extensions from the sections.

It is well known to those familiar with the art that a very close simulation of typewrit-

ing can be produced from printing characters which are stamped up from sheet-metal. It has heretofore been impracticable to produce a printing form from sheet-metal large enough to print an entire page at one operation for the reason that the sheet-metal blank was so large that it could not be readily provided with the stamped up printing characters and also because one wrong character on a blank would render the whole form valueless.

My present invention aims toward the provision of a printing form which shall be composed of a number of printing form sections each provided with several lines of stamped up printing characters. Should one of these sections be provided with the wrong character during the stamping up operation this section can be discarded and a new one made without destroying the whole form. Furthermore, the individual sections can be readily handled and can be easily provided with the desired printing characters by the graphotype and other similar machines already in existence.

From the drawings it will be observed that the form section 5 which is preferably made of sheet-metal is provided at one edge with a downwardly extending flange 6 formed by bending over the edge of the metal blank. This flange I term a retaining flange as it is provided for the purpose of cooperating with a groove in a form bed to retain the form section in its proper position on the bed and against movement longitudinally of the bed. It is desirable, of course, that the lines of printing characters throughout the entire printing form be spaced equidistant and it, therefore, becomes necessary to place the lines of characters on each form section quite close to the edges. The graphotype and other similar machines which are used to stamp up the printing characters from sheet-metal blanks are equipped with holding jaws between which the metal blank being operated upon is held, suitable mechanism being provided for feeding these jaws along a predetermined distance between the formation of each successive character. A pair of these jaws is indicated on the drawings by reference character 7 and it will be manifest that a line of printing characters can not be formed very close to the edge of the metal blank that is held between these jaws.

For the purpose of having the printing characters formed as near the edge of the form section as is required to produce the proper spacing between the lines of adjacent sections, I prefer to break off that portion of the blank which is held between the jaws 7 during the formation of the characters on the sections and, to this end, I score or weaken each section a short distance from its edge along the line indicated by reference character 8. The portion beyond the score line forms, therefore, merely a temporary extension which may be gripped by the jaws during the formation of the printing characters and can be subsequently broken off and discarded, leaving the outermost line of printing characters close to the edge of the form section.

The form sections are preferably scored to weaken them at the required distance at one edge and are provided with the flange 6 at the other edge before the printing characters are formed thereon. The temporary extension 9 may then be gripped between the holding jaws 7 by means of which the section is fed through the graphotype or similar machine and the printing characters are stamped thereon in lines as shown in Fig. 3. Before the sections are assembled on the form bed to produce the completed printing form the temporary extensions 9 are broken off, this result being readily accomplished by inserting the extensions in a groove in any suitable member 10 whereupon a slight movement of the section between the positions shown in full and in dotted lines in Fig. 4 will suffice to break the metal along the weakened line 8, thereby leaving the outermost line of printing characters the required distance from the edge of the section.

While I have shown but one printing section in the present application it will be understood that as many of these sections as are required to produce the desired printing form may be made in a similar manner and that when these sections are all assembled, as disclosed in my aforementioned application, a printing form of the desired size having printing characters struck up from sheet-metal is produced.

It is believed that my invention will be understood from the foregoing without further description and it will be obvious that considerable variation in the details of construction may be resorted to within the scope of the following claims.

I claim:

1. A blank for a section of a printing plate having a weakened portion extending from end to end thereof adjacent one edge of the blank, said weakened portion dividing the blank into a section for containing the punched-up printing characters, and a section to be gripped by the holding jaws of the punching machine, the weakened portion serving to permit of the last mentioned section being broken off preparatory to fitting the stamped section in a printing form.

2. A blank for a section of a printing plate provided at one edge with a flange, and also provided with a weakened portion extending from end to end of the blank adjacent the opposite edge thereof, said weakened portion dividing the blank into a section lying between the weakened portion and the flange for containing the punched-up printing characters, and another section at the other side of the weakened portion to be gripped by the holding jaws of the punching machine, the weakened portion serving to permit of said other section being broken off preparatory to fitting the stamped section in a printing form.

3. A printing plate section having a flange at one edge, and a weakened line adjacent the opposite edge of the plate in substantial parallelism with said edge and extending from end to end of the plate, there being lines of type stamped up in the plate portion between the flange and the weakened line, and the plate portion between the weakened line and the adjacent edge of the plate being blank, the weakened line serving to permit of the blank portion being broken off preparatory to fitting the stamped portion in a printing form.

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