Sept. 27, 1938. L. H. KLEIN 2,131,289

PRINTING TYPE AND METHOD OF MANUFACTURING

Filed April 12, 1935

Fig. 1.

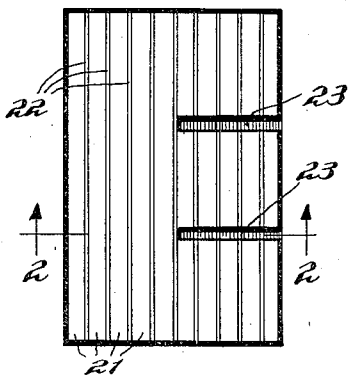


Fig. 2.

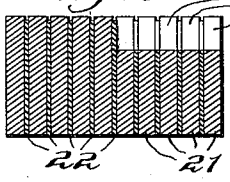


Fig. 3.

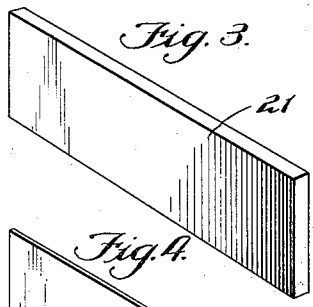


Fig. 4.

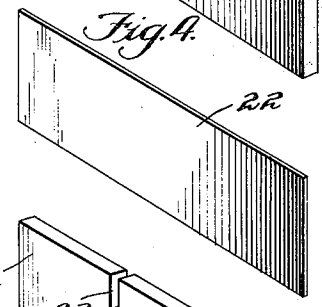


Fig. 5.

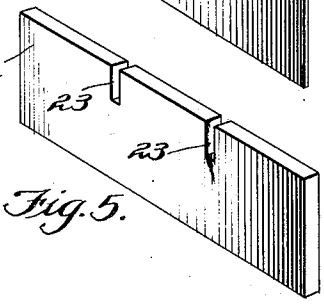


Fig. 6.

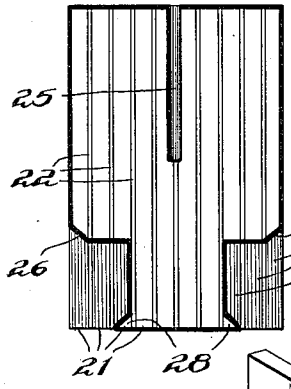


Fig. 7.

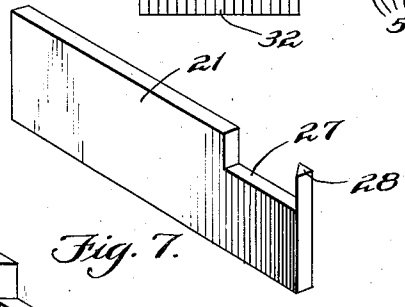


Fig. 8.

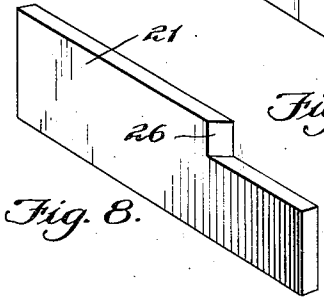


Fig. 9.

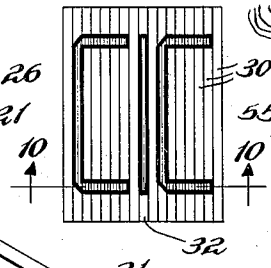


Fig. 11.

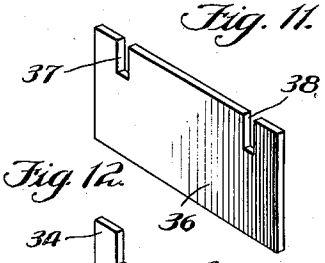


Fig. 12.

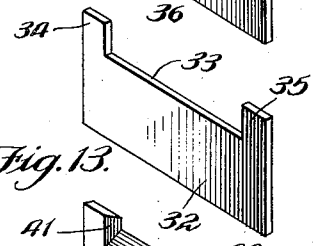


Fig. 13.

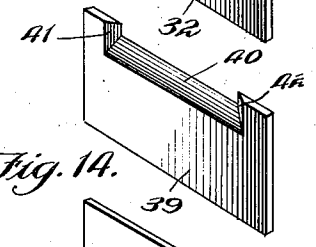


Fig. 14.

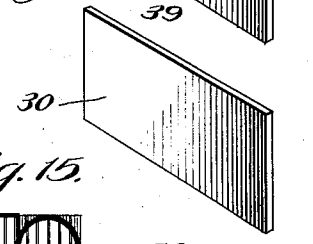


Fig. 15.

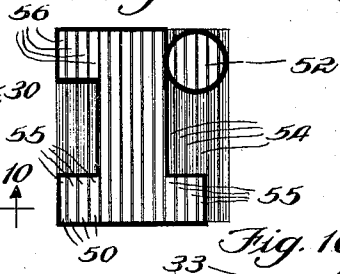
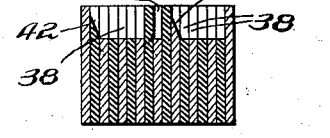


Fig. 10.



INVENTOR.

Lewis H. Klein

BY

Harry W. Hitzeman

ATTORNEY.

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2,131,289

UNITED STATES PATENT OFFICE

2,131,289

PRINTING TYPE AND METHOD OF MANUFACTURING

Lewis H. Klein, Chicago, Ill.

Application April 12, 1935, Serial No. 15,963

6 Claims. (Cl. 101—401.2)

My invention relates to improvements in printing type and similar devices and the method of manufacturing the same.

The principal object of my invention is to provide an improved method of constructing letters or designs with printing rules and spacers.

A further object of my invention is to provide an improved design of type or similar devices with the use of desired lengths of rules and spacers.

A further object of my invention is to provide an improved and simple construction of type or similar devices capable of being easily and quickly constructed and assembled.

A further object of my invention is to provide type or other devices as described, constructed from printing rules of various sizes and shapes.

A further object of my invention is to provide an improved process for constructing type or similar devices from rules and spacers, by the simple use of saws and miters.

A further object is to provide type which can be constructed of lengths of rules which are ordinarily regarded as waste and thrown away.

A further object of my invention is to provide an improved process of manufacturing and an improved construction of reverse type.

A further object is to provide a comparatively simple method of constructing reverse type by the use of printing rules sawed and mitered to form the desired configurations.

Other objects and advantages will be more apparent from the following description wherein reference is had to the accompanying sheet of drawings upon which

Fig. 1 is a plan view of the letter E constructed in my improved manner;

Fig. 2 is a cross-sectional view thereof taken on the lines 2—2 of Fig. 1;

Fig. 3 is a perspective view of an ordinary printing rule;

Fig. 4 is a similar perspective view of a spacer;

Fig. 5 is a similar perspective view of one of the rules that has been cut to form the letter E;

Fig. 6 is a plan view of the letter Y constructed in my improved manner;

Fig. 7 is a perspective view of one of the rules used to construct the letter Y;

Fig. 8 is a similar perspective view of another of the rules used to construct the Y;

Fig. 9 is a plan elevational view of a plurality of rules constructed and assembled to form the letters C I C;

Fig. 10 is a cross-sectional view taken on the lines 10—10 of Fig. 9;

Fig. 11 is a perspective view of one of the rules used to form the design shown in Fig. 9;

Fig. 12 is a similar view of the rule used to form the letter I in Fig. 9;

Fig. 13 is a perspective view of one of the rules used to form the letter C in Fig. 9;

Fig. 14 is a similar perspective view of one of the spacers; and

Fig. 15 is a plan view of another type of construction of letters.

In the drawing, I have shown one embodiment of my invention and accordingly in Fig. 1, I have shown the letter E which is constructed of ten printing rules 21 and nine spacer members 22. In constructing this letter, the rules 21 and the spacers 22 are cut to the desired length, assembled together as shown in Fig. 1, and the five rules to the right of the letter and the four spacers therebetween are run through a saw or similar device to form the slots 23, spaced apart as shown. When this operation has been completed, a printing member for printing the letter E has been provided. The letter produced by using this assembled type will be substantially as shown in Fig. 1, with the spacers 22 provided for the purpose of showing white lines in the color of the letter. Thus a black letter with vertical lines or stripes, or a letter of any desired color with white lines or stripes can be produced.

In Fig. 6, I have shown the letter Y similarly constructed of a plurality of rules 21 and spacers 22. In constructing the letter Y, it is necessary to run a saw down through the center of the assembled group to form the slot 25 of the desired length. It is further necessary to miter the end rules 21, as shown in Fig. 8, by cutting the bevel or miter 26 and the end of the rule down to the desired depth as shown. In constructing the third rule from the ends, it is necessary to form the slot 27, leaving the upwardly projected, triangularly-shaped projection 28 to form the edges of the base of the letter Y.

From the foregoing description, it is believed to be apparent that all of the other letters of the alphabet can be formed by either a sawing or mitering operation, or both. It will further be obvious that rules of any desired width, such as one point, twelve point, six point or any other desired width of rule and spacer may be employed. This will depend entirely upon the purpose for which the letters are to be used. It will further be apparent that the heighth or width of the letter can thus be modified to suit the desired purpose. I also wish to explain that while I have shown vertically positioned rules so

that the white lines or stripes therein are vertical, it will be obvious that the same may be horizontal or at any desired angle, the only difference being in the cutting operations required to form the letter.

In Figs. 9 and 10, I have shown a method of using the rules to provide reverse letters, or in a printing operation a background will be printed and the blank space will be the outline of the letters or designs desired. This may also be done by the use of rules as I have shown, and accordingly I provide a plurality of rules **30**, cut as shown, to form the desired letters. For example, in Fig. 9, the I is constructed of a rule **32** which has been cut as shown at **33** to provide the upper and lower projections **34** and **35**. The rules used to form the horizontal portions of the letter C are shown at **36** and are provided with the slots **37** and **38**. The rules used to form the vertical portion of the letter C are shown at **39** and are cut to form the slot **40** with the upper and lower beveled edges **41** and **42**.

In Fig. 15, I have illustrated a common form of letter constructed of sixteen rule members **50**. The rules which are employed to form the circular portion **52** of the letter R have the material about the circular portion filed down or otherwise rounded to the shape shown, so that in a printing operation the letter will appear as shown. It will be noted that several of the rules, numbers **54**, thus are formed with the portion **52** and the portion **55** raised, and the balance of the metal cut out to provide only surface contact upon these portions. Similarly, the first four rules in the letter are formed with the portions **55** and similar portions **56**, with a slotted-out portion therebetween.

It will be obvious that any shape or style of letter may be formed with my improved method of using rules, and it will further be obvious that any desirable design may also be worked out in the same manner.

From the foregoing description it is believed to be apparent that by the use of simple printing rules I have provided both a method and a product of manufacture that is easily and simply carried out, and by the use of which any desirable shape or size of letters or other designs may be formed.

I do not wish to limit myself to the specific details shown; rather, what I desire to secure and protect by Letters Patent of the United States is:

1. As an article of manufacture, the combination of a plurality of similarly shaped rules and similarly shaped spacers assembled together to form a unit, some of said rules and spacers being slotted, some of said rules being beveled and some of said rules and spacers having rounded portions thereon forming a circular portion, and all of said rules and spacers in said unit forming a complete letter.

2. The method of constructing a reverse printing type which consists in assembling together as a unit a plurality of printers stock rectangularly shaped rules and spacers of the same length, the rules all of the same thickness, the spacers all of the same thickness, cutting parallel walled slots to a desired depth in various of said rules and spacers to form the outline of a letter, thereby providing a printing background and an unprinted letter on the background.

3. In a printing type of the character described the combination of a plurality of printers stock rectangularly shaped rules and spacers of the same length assembled together to form a unit, a portion of said rules and spacers slotted and bevelled to form a complete letter.

4. As an article of manufacture the combination of a plurality of printers stock rectangularly shaped rules and spacers assembled together to form a unit, all of said rules and spacers of the same length, all of the rules of the same thickness, all of the spacers of the same thickness, some of said rules and spacers being slotted and several of said rules and spacers being formed with beveled edges to provide a complete letter.

5. As an article of manufacture a plurality of printers stock rectangularly shaped rules assembled together to form a unit, several of said rules having cut-out and rounded portions therein whereby a printing member is provided for printing a letter.

6. In a printing type of the character described, the combination of a plurality of stock printers rules and spacers that are rectangularly shaped, the rules being of uniform thickness and the spacers being of uniform thickness, a portion of said rules and spacers slotted after assembly to form completed letters.

LEWIS H. KLEIN.