

April 8, 1930.

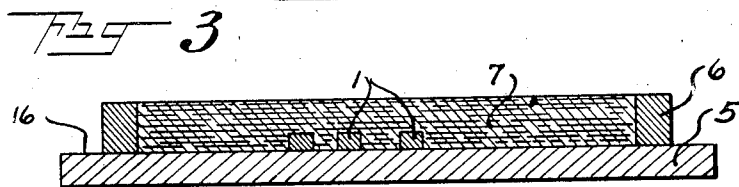
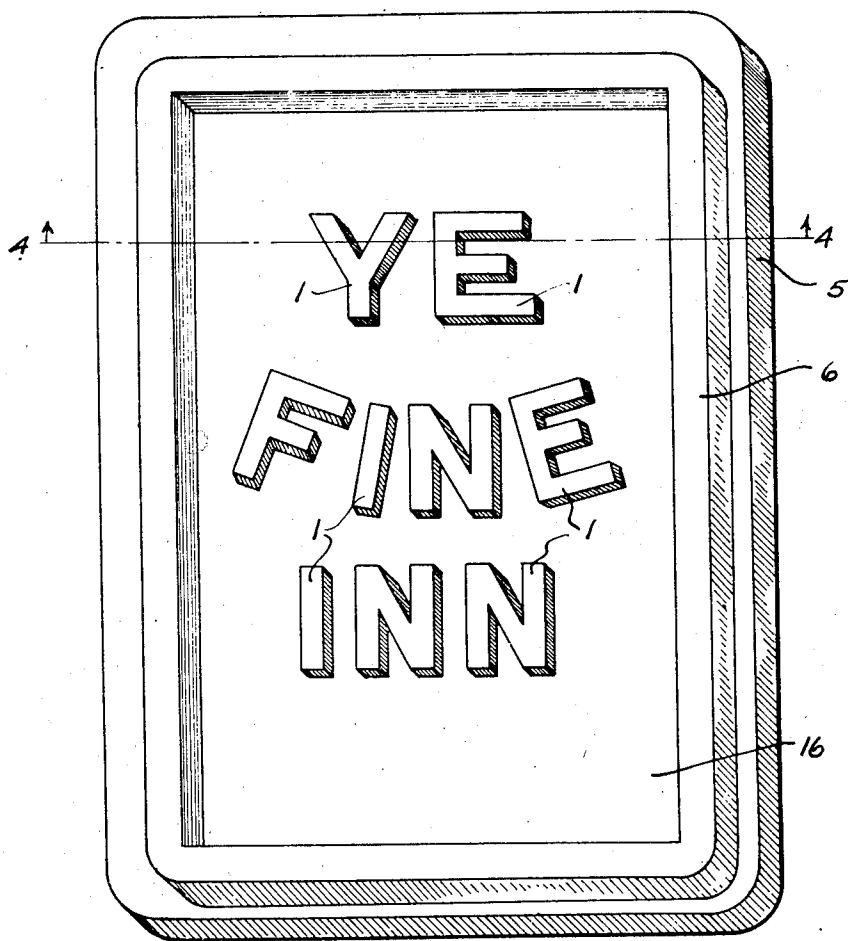
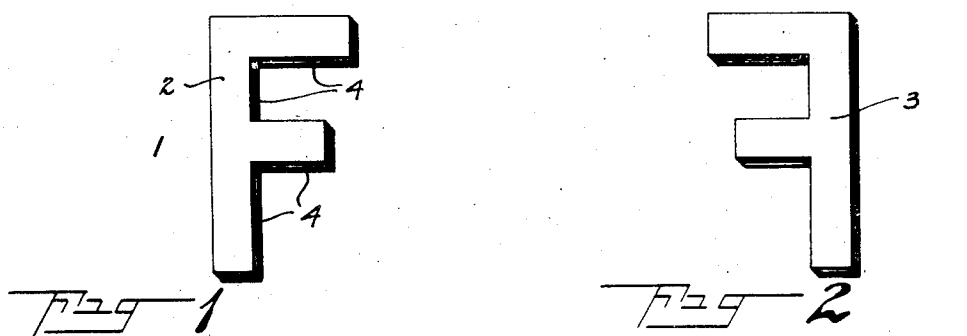
W. LOBKE

1,753,932

ART OF PRINTING

Filed Aug. 20, 1926

2 Sheets-Sheet 1



INVENTOR.

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April 8, 1930.

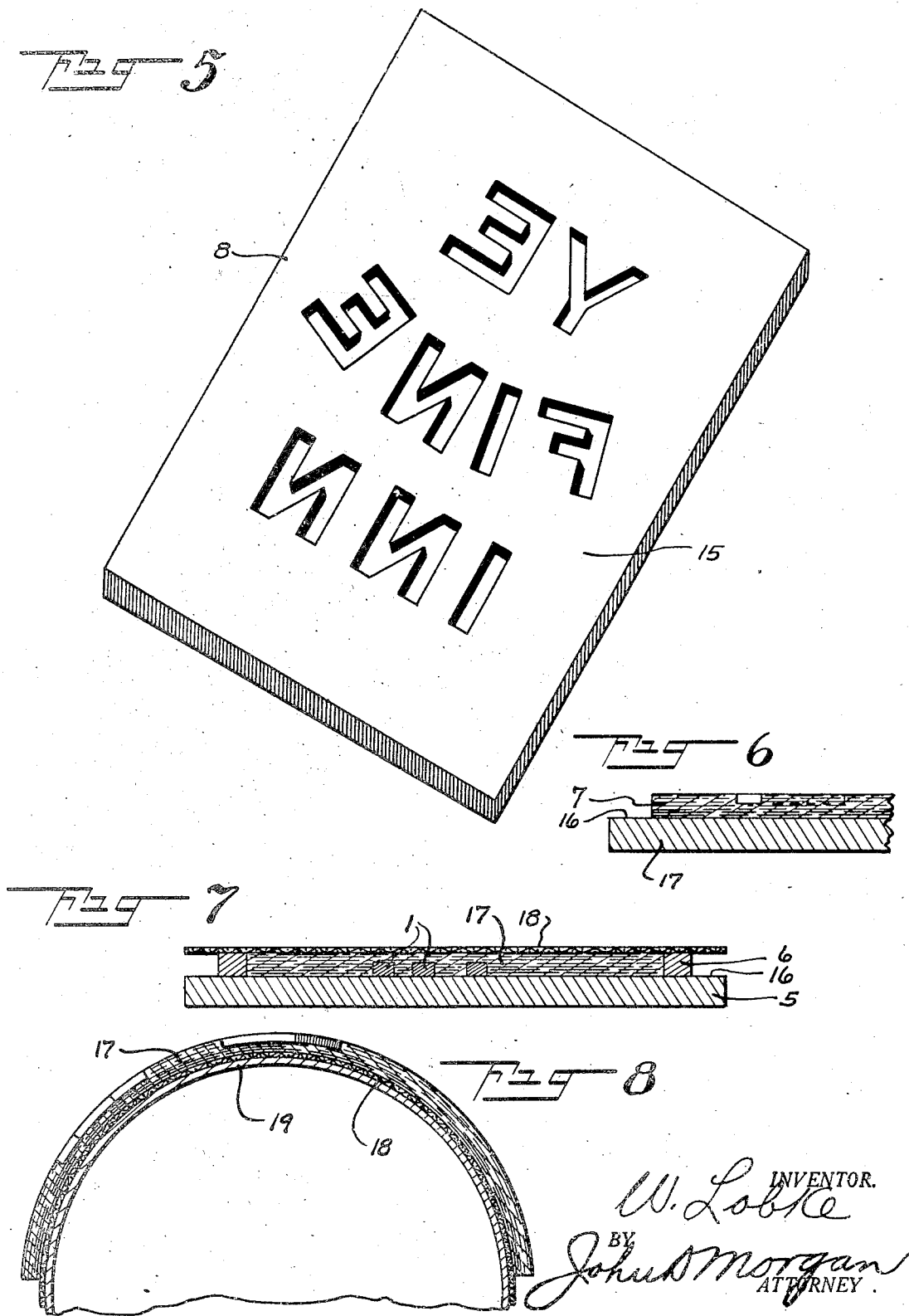
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ART OF PRINTING

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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

WILLIAM LOBKE, OF BROOKLYN, NEW YORK

ART OF PRINTING

Application filed August 20, 1926. Serial No. 130,372.

My invention is an improvement in the art of printing and covers more specifically a new form of type, a new flexible printing plate, a method of printing, a composition to form my new printing plate, a new printed product, and the method of making stereotype and electrotype plates.

Objects and advantages of the invention will be set forth in part hereinafter and in part will be obvious herefrom, or may be learned by practice with the invention, the same being realized and attained by means of the instrumentalities and combinations pointed out in the appended claims.

My invention consists in the novel parts, constructions, arrangements, methods, articles of manufacture, combinations and improvements herein shown and described.

The accompanying drawings, referred to herein and constituting a part hereof, illustrate one embodiment of the invention, and together with the description, serve to explain the principles of the invention.

Of the drawings:—

Fig. 1 is a perspective view of my new form of type;

Fig. 2 is a perspective view of the same type shown in Fig. 1, reversed to form a left-handed type;

Fig. 3 is a perspective view of a lay-out of my new type upon a base plate of any suitable material;

Fig. 4 is a vertical section, on line 4—4 of Fig. 3, after the composition has been poured;

Fig. 5 is a perspective view of the flexible printing plate with my new type removed from the plate;

Fig. 6 is a fragmentary sectional view showing one way of backing up my yielding and flexible plate;

Fig. 7 is a vertical section showing a different manner of backing up the flexible printing plate with a flexible backing so that it can be used in a cylinder or offset rotary press.

Fig. 8 is a vertical section showing the plate mounted on a cylinder.

My invention relates to the art of printing and more particularly to obtaining a printed

product of fine and artistic appearance at minimum expense.

It is well known in the printing art that all ordinary type have the same base or stem regardless of the particular character on the type. This permits the type and the quads to be properly spaced by spaces leads or rules and locked by means of a quoin and other suitable furniture in a chase. When the printed product has a curved line, or any other printed matter that cannot be produced by a straight line of type, it takes a great deal of time and expense to make the necessary lay out. There are other objections which will be well known in the art without being here mentioned.

By my invention I avoid the necessity of using spaces leads, rules, quoin and other furniture by my new type 1 (Fig. 1) which is unlike ordinary type, in that it has no base or stem, the entire type following the contour of the character. For purposes of illustration, I have shown the letter "F" which has a flat top 2 and a flat bottom 3 with perpendicular sides 4, 4 connecting the flat top and flat bottom. This, of course, applies to all the type, also to ornaments and pictures used. In Fig. 1 the type is shown right-handed and in Fig. 2 it is shown left-handed, both sides of the type being employed either to make a right or left-handed printing plate as desired for direct or indirect printing, such as offset.

On a base plate 5 of any suitable material, as for example metal, glass, stone or similar material, I make the type lay-out by simply placing the type flat upon the surface of the base with any suitable intervals desired in the printed product. In Fig. 3, I have shown the type layout having three lines, the middle line being curved. It, of course, being understood that any suitable layout of the type may be employed. On the base 5, I mount a frame or chase 6 of the particular height desired for the printing plate. I then pour over the type layout a plastic composition of any suitable constituents which will set. After the composition has set, the frame or chase 6 is removed, and the set composition 7 is then lifted from the base 5, taking with it the type layout. The type is then removed

from the composition which then forms a flexible printing plate 8 (Fig. 5). The type is preferably oiled or greased to permit its more ready removal from the composition.

After the type is removed they can, of course, be used over and over again.

The surface 15 of the yielding printing plate 8 will be plain or ornamented according to the surface 16 of the base plate 5.

If the printing plate 8 is to be used in a printing press, I lay on top of the composition 7 a piece of wood or other material, 17, such as is used for a base for cuts etc. in the printing art. This base 17 is type high less the thickness of the type used. The wooden base 17 may be pressed down on top of the composition before it sets simply by putting a weight on it (not shown).

In case it is desired to use the flexible printing plate 8 in rotary and offset presses etc. I use a flexible base of any suitable description, such as celluloid or a fabric 18 (Fig. 7) or other material. Preferably this fabric will be heavy linen or similar material. With such a flexible backing the printing plate 8 can be mounted upon the cylinder 19 of a rotary or offset press, as shown in Fig. 8.

Due to the relative softness and resiliency of the printing plate 8, it can be used without make ready in a printing press having a platen, or in a cylinder or offset rotary press.

I may use any suitable composition which can be made plastic for pouring over my type layout and which will set at ordinary atmospheric temperatures. I may for example use a composition of gelatine or of glue. The composition may be hardened in any suitable manner by any suitable hardening agent such as formaldehyde, or any other hardening and toughening fluid.

In printing from the flexible plate 8 a printed product is obtained in which the outline of the type or characters is made by the paper on which the print is made. Of course, this cannot be done with ordinary type. This gives a most pleasing and artistic effect to the printing, which is particularly desirable in advertising.

Instead of forming a flexible printing plate 8 I may form an electro-type by placing the necessary layout of my type 1 upon a base, as shown for example 5 in Fig. 1, and then graphite the base and type and deposit metal upon them electrolytically to form an ordinary electro-type plate.

A stereotype plate can be formed by pressing a mat down upon the type layout, as shown in Fig. 1, and then casting a stereotype plate from the mat in the usual manner.

It will be noted that no spaces, quads, reglets and other furniture are employed; that there is no lockup; that I can print a curved line, or a circle of type, as easily as I can

a straight line of type, that no planing down is necessary, and that my printing plate is made by one cast.

It is also to be understood that cuts of pictures, ornaments, etc., may be assembled with my type on the base 5, to produce any desired printed product, the cut having to be removed from the flexible plate 8 in the same manner as the type. If desired, the type surface in contact with the base 5 may be provided with an adhesive coating to prevent the type being moved as the composition is poured over it.

To produce color plates with shaded type, ornaments, etc., I use two or more types (or parts thereof) different in size, but fitting together. Preferably I produce first the plate with the larger type as described above and then make the layout of the smaller type in such a manner that each single piece of the type etc. is centered according to the layout of the first plate with larger type. If these plates are printed one on top of the other in different ink colors, the difference between the larger and smaller type, etc. or of parts thereof produces a shade in different color around the smaller type etc. if two sizes of types are used or of two shades and more if three or more types etc. are used.

The invention in its broader aspects is not limited to the specific mechanisms shown and described but departures may be made therefrom within the scope of the accompanying claims without departing from the principles of the invention and without sacrificing its chief advantages.

What I claim is:—

1. The method of manufacturing a printing plate, which method consists of making on any flat plate a loose layout of type having vertical sides, following the outline of the character, surrounding this layout of loose type with furniture, pouring a plastic composition over this layout of type, thus covering the type totally and pressing with a weight standing on it, a base of wood or the like, on the composition, in such a manner as to bring the adhesive composition in a firm contact with the wood plate, enabling them to dry together as one unit, and then removing the type from the composition.

2. The method of manufacturing printing plates which consists in providing a flat surface, arranging a loose type layout on said surface, surrounding the layout with a frame the height of the printing plate desired, pouring a plastic composition over the type, securing a rigid backing member to the composition and finally removing the type after the composition has set.

In testimony whereof, I have signed my name to this specification.

WILLIAM LOBKE.