Sept. 8, 1931. H. E. HUBBARD 1,822,291

PRINTING DEVICE

Filed Aug. 10, 1927

Fig. 1

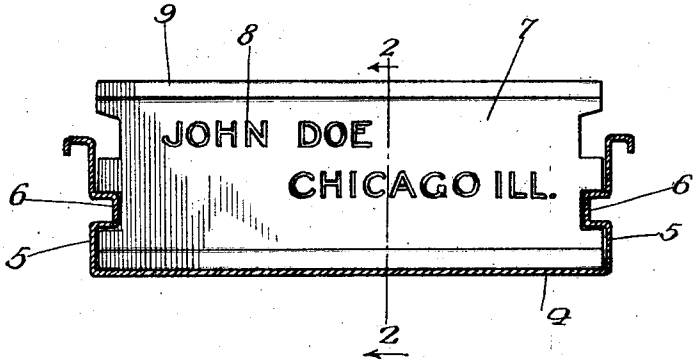


Fig. 2

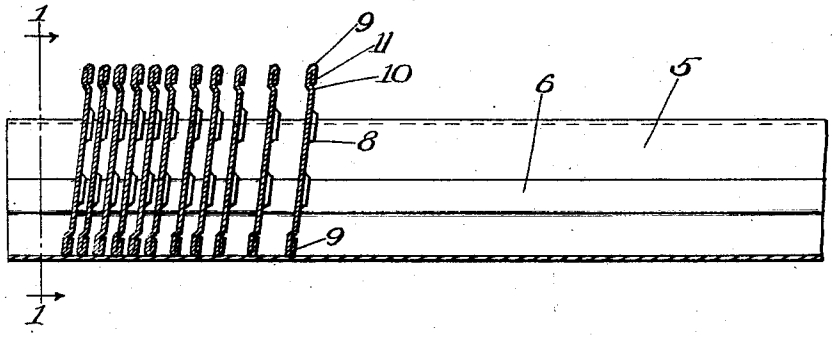
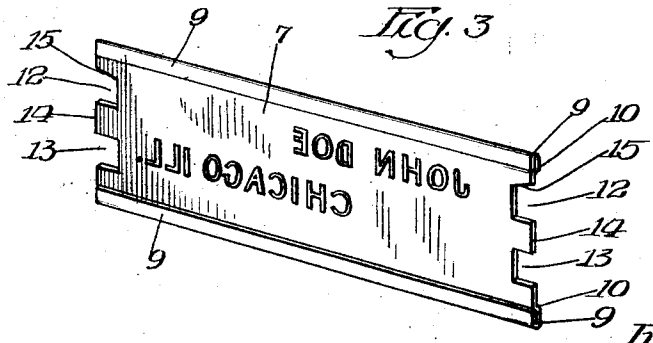


Fig. 3



Inventor:
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Patented Sept. 8, 1931 1,822,291

UNITED STATES PATENT OFFICE

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PRINTING DEVICE

Application filed August 10, 1927. Serial No. 211,962.

This invention relates to printing devices and more particularly to that kind which consist of one-piece plates, generally oblong in shape, which are used in addressing machines and are stored in substantially upright position in trays or drawers according to a selected classification system.

The object of the invention is to provide a novel printing plate which, as a blank, is adapted to have the printing characters stamped up thereon with either long edge as the top edge of the printing plate, and which is adapted to be loosely engaged with the tray or drawer so that it will always be maintained in an upright position in the tray or drawer convenient for inspection.

And another object of the invention is to provide the plate with a convenient means whereby one long edge may be easily distinguished from the other for convenience in arranging the plate in various positions in which it is used or stored.

In the accompanying drawings I have illustrated a selected embodiment of the invention and referring thereto:

Fig. 1 is a transverse sectional view on the line 1—1 of Fig. 2.

Fig. 2 is a longitudinal sectional view on the line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the plate showing the back thereof.

Referring to the drawings 4 is a tray or drawer which is preferably made of sheet metal having sides 5 bent to form guides 6, intermediate of the top and bottom of the sides.

The plate 7 is made of one piece of sheet metal and the type characters 8 are stamped up therefrom in relief on the front of the plate, Fig. 3, and in intaglio on the back of the plate, Fig. 1. Opposite edges of the plate are bent over upon the front of the plate to provide top and bottom marginal edges 9 of double thickness. These edges are tightly compressed and depressed so that on the front of the plate they lie substantially flush with that portion of the plate therebetween and on the back of the plate they lie in a plane beyond the plane of the intermediate portion of the plate, and form a recess at the back of the plate between the marginal edges. The double thickness marginal edges are tightly compressed to reduce the over all thickness of the plate to a minimum for economy of space in stacking and storing. At the back of the plate the marginal edges project beyond the plane of the intermediate portion of the plate about a single thickness of the plate and shoulders 10 are formed where the marginal edges adjoin the intermediate portion of the plate against which the extreme edges of the plate abut. Thus the extreme edges of the plate are protected by the shoulders and do not present obstructions or in any way interfere with feeding, stacking, storing or other uses of the printing device. This depression at the back of a plate is of sufficient depth to receive the raised type characters on another plate when the plates are stacked or arranged snugly in a tray or drawer to prevent damage to the face of the type characters. Each end of the plate is provided with two recesses 12, 13 and between the recesses there is a projection 14. This projection is conveniently located midway between the long edge of the plate. Each of the recesses 12, 13 is of a size to receive a guide 6 and the recess is preferably somewhat larger than the guide so that when the plates are arranged in a tray and engaged with the guides thereof they will be supported on the bottom of the tray and be held by the guides in a slightly rearwardly inclined position. It is desirable in this class of printing devices where the type characters are stamped up directly from the plate, that the plates be arranged in the tray back foremost so that the type characters can be easily read.

It is important that all the plates in a tray or drawer be arranged in upright position, and whereas this can be accomplished by strict attention to the type characters, I have found it desirable to provide means aside from the type characters by which the top of the plate can be readily and quickly distinguished from the bottom of the plate to facilitate distribution and sorting. A simple means for this purpose consists in providing a recess at one or both ends of the plate with an inclined edge, as 15. This inclined edge is preferably

located adjacent the marginal edge which is to be the top edge of the printing plate. If the inclined edge is provided at opposite recesses in both ends of the plate they will indicate which long edge is the top edge of the plate; but if the inclined edge is provided in a recess at one end only of the plate, it will by its position indicate not only which of the long edges of the plate is the top edge, but it will also indicate by its position which is the front and which is the back of the plate. This may be more easily understood by reference to Fig. 3, which shows the front or type character side of the printing plate. If only the inclined edge 15 at the left end of this plate is provided, it will indicate at once that the long marginal edge of the plate nearest to the inclined edge 15 is the top edge of the printing plate, and also that when this inclined edge 15 is in uppermost position at the left end of the plate the front of the plate must be foremost. This is important to guide the operator in placing the blank plate in a machine right side up for stamping up the type characters on the plate so that these type characters will always appear in relief on the front of the plate; and it is also important to guide the operator in sorting and storing the printing devices and in other uses thereof.

My invention provides a printing device of simple and compact form consisting of a single sheet of metal having its marginal edges inturned and compressed to reinforce and strengthen the plate and depressed to provide a recess at the back of the plate for receiving and protecting the type characters of another plate in stored or stacked position, and having recesses at its ends whereby the plate may be used with either edge as the top edge of the plate, and having one or more inclined edges disposed in a position for indicating a predetermined position of the plate, or for classifying or for other purposes. I provide two notches separated by an intermediate projection at each end of the plate, the notches at one end aligning with the notches at the other end so that with either long edge of the plate as the top edge the plate may be arranged in proper position in the tray or drawer. The blanks may be made with the inclined edge 12 at one or both ends of the plate, and this inclined edge may be adapted as indicating that the long edge nearest thereto is the top edge of the printing device, as shown in Fig. 3, or it may be adapted as indicating that the long edge farthest therefrom is the top edge of the printing device. If the blanks are all made like Fig. 3 (without the type characters), they may be separated in two groups, identified by the position of the inclined edges; one group having that long edge nearest the inclined edge the top edge of the blank and the other group having that long edge farthest from the inclined edge the top edge of the blank. The two recesses at each end of the plate facilitate the use of the plates in trays or drawers provided with guides to engage these recesses; the recesses do not weaken the plate or in any way interfere with its use in an embossing machine or in an addressing machine; and the inclined edge 15 provides a means on the plate which does not involve the use of separate or fragile parts whereby the plates may be conveniently sorted, classified and properly arranged.

I have shown my invention embodied in a simple form which I have found satisfactory for the purposes herewith set forth, but I reserve the right to make all such changes therein as fall within the scope of the following claims.

I claim:

1. As a new article of manufacture, a printing plate for use in addressing machines and adapted to be stored upright in a tray or drawer, said plate being formed of relatively thin sheet metal having opposite marginal portions folded upon themselves to provide inner and outer sections compressed into engagement with each other, the outer of said sections lying substantially in the plane of the intermediate portion of the plate on the front thereof and the inner of said sections being joined to and extended beyond the plane of the intermediate portion of the plate on the back thereof, said portions serving to reenforce and strengthen the plate and to separate the stored plates to prevent injury to faces of type embossed on the intermediate portion and appearing in relief on the front, said plate having oppositely disposed spaced apart recesses in its ends.

2. As an improved article of manufacture, a printing plate of the class described designed to be loosely engaged with a tray or holder, said plate having in each end spaced apart recesses, there being a projection between said recesses, the recesses and projection at one end being disposed opposite the recesses and projection at the other end, corresponding recesses at each end having the edges opposite the projections inclined inwardly from the outer edge of the plate.

HENRY E. HUBBARD.