June 2, 1931. J. A. BAILEY 1,808,515

PRINTING DEVICE

Filed Aug. 11, 1928

Fig. 1

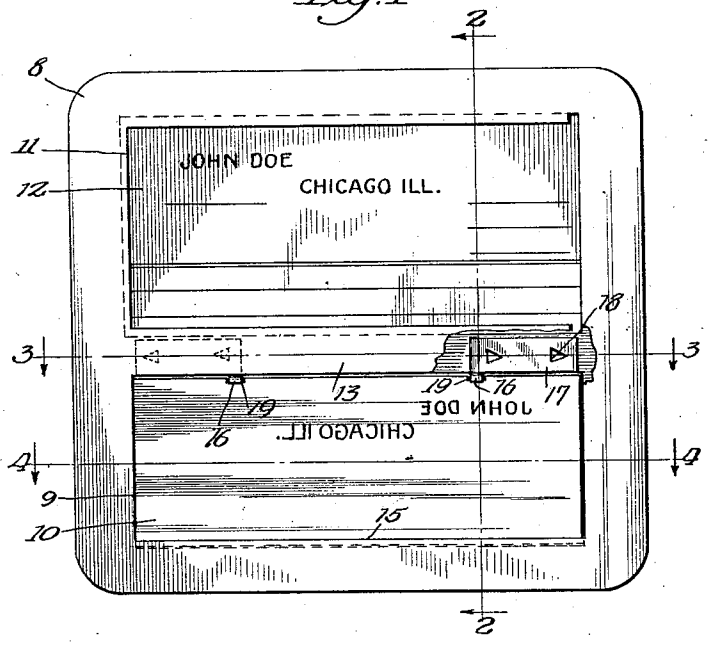


Fig. 2

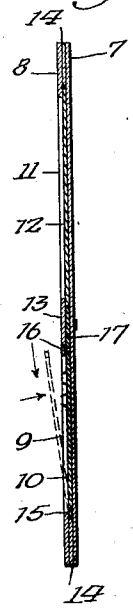


Fig. 3

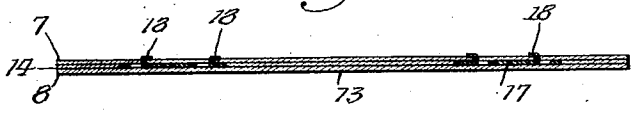


Fig. 4

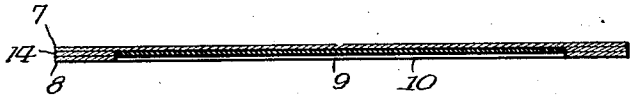


Fig. 5

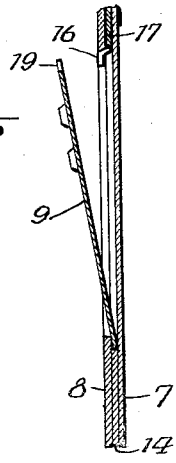
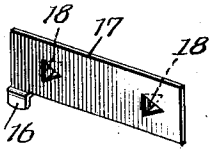


Fig. 6



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Atty.

Patented June 2, 1931 1,808,515

UNITED STATES PATENT OFFICE

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PRINTING DEVICE

Application filed August 11, 1928. Serial No. 298,973.

This invention relates to printing devices of the kind which are adapted to be run through an addressing machine for making printing impressions and are stored in trays or drawers in accordance with a selected classification system.

The object of the invention is to provide a printing device of simple construction, light in weight, and comprising a removable card and a removable printing plate which can be easily and quickly changed whenever required.

Another object of the invention is to provide a printing device comprising a frame and a printing plate, the frame having simple and novel means for detachably holding the printing plate thereon.

And a further object of the invention is to provide the frame of a printing device with yielding clamps for engaging a detachable printing plate at one edge to limit bodily movement of the plate in the direction of the clamps and to hold the plate in proper position on the frame.

In the accompanying drawings illustrating a selected embodiment of the invention

Fig. 1 is an elevation of a printing device embodying the invention, and partly broken away.

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

Fig. 3 is a sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a sectional view on the line 4—4 of Fig. 1.

Fig. 5 is an enlarged sectional view of a portion of the printing device on the line 2—2 of Fig. 1 showing the plate partly inserted in the frame.

Fig. 6 is a detail perspective view of one of the clamp devices.

Referring to the drawings the frame of the printing device comprises a back 7, a mat 8 fastened to the front face of the back and provided with an opening 9 for a printing plate 10. The frame may be made of cardboard, light fiber board or other light material and in any desired size and shape. The mat may be made of the same size as the back and of the same material as the back. In the preferred embodiment of the invention the mat is also provided with an opening 11 to receive an information card 12 which may be detachably secured in the frame in any suitable manner. The mat has a transverse strip 13 between the openings 9 and 11. Filler strips 14 are located between the mat and the back to space the mat from the back and the inner edge of the mat at the lower edge of the opening 9 projects inward beyond the filler to form a flange 15 for receiving the lower edge of the plate 10. One or more clamping devices are provided on the frame to engage the upper edge of the plate and these devices may be conveniently made in the form of hooks 16 formed on metal strips 17 which are provided with prongs 18 for securing the strips to the frame beneath the transverse strip 13. These hook clamps engage the upper edge of the plate and hold the plate in the opening 9 with its lower edge engaged beneath the flange 15. The preferred form of clamp herein shown and described engages the upper edge and the face of the printing plate and functions to hold the plate within the opening 9 and flat against the back by holding the lower edge of the plate under the flange 15 and by directly engaging the face of the plate. I prefer also to provide the plate with notches 19 at its upper edge to receive the clamp hooks 16 so that the clamps will also function to hold the plate against endwise movement. The opening 9 is of sufficient length to snugly receive the plate and the ends of the plate will abut the end edges of the opening. The width of the opening from top to bottom may be slightly less than the width of the plate so that the plate will have a substantial engagement

with the flange 15 when the clamp hooks are located at the upper edge of the opening. The clamp hooks are made to project sufficiently over the face of the plate to ensure engagement with the plate for holding the plate in the frame. These clamp hooks are small in size, they are made of metal, and preferably of metal having a sufficient resiliency to enable the hooks to yield when the plate is pressed against them so that they will slip over the edge of the plate to engage the face thereof. To remove the plate some sharp instrument is inserted beneath the upper edge of the plate and sufficient pressure used to force the upper edge of the plate from beneath the clamps, Fig. 5, after which the plate can be withdrawn from the flange 15. The clamp strip 17 is conveniently located under the transverse strip 13 of the mat and I find it convenient to use two of these strips, each having a clamp hook 16, but the two strips may be made in one strip and any number of clamp hooks may be used. A frame embodying my invention can be made in any desired size and shape and of light material, and the printing plate can be made of light metal with the type characters embossed thereon. The plate retaining means are simple in construction and easily operated, and they will hold the plate securely in its proper position in the frame with the body of the plate below the face of the frame and the faces of the type protected against damage by plates rubbing together in handling, storing or otherwise. The invention may be used in a frame without an information card or with an information card held in place by any suitable retaining means.

Changes in the form, construction and arrangement of parts of the invention may be made without departing from the spirit or sacrificing any advantages of the invention and I reserve the right to make all such changes as fall within the scope of the following claims.

I claim:

1. A printing device comprising a frame and a printing plate, said frame having a back and a mat thereon and an opening in said mat to receive said plate, a flange at one edge of said opening to receive an edge of the plate, and a hook clamp projecting from the opposite edge of said opening to engage the opposite edge of said plate.

2. A printing device comprising a frame and a printing plate, said frame having an opening therein and means thereon to engage one edge of the plate when the plate is disposed in the opening, and yielding hook clamps on the frame constructed to project over the opposite edge of the plate and to engage the face of the plate for holding the plate in engagement with said flange and on said frame in said opening.

3. A printing device comprising a frame and a printing plate, said frame having a back, a mat on the back having an opening therein, a printing plate, a flange at the bottom edge of said opening to receive said plate, and a hook clamp on the frame at the upper edge of said opening adapted to yield under pressure of the plate to snap over the opposite edge of the plate and engage the face of the plate for holding the plate in said opening.

JAMES A. BAILEY.